Managing scarcity: understanding and developing the use of economics in healthcare commissioning

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PhD Thesis
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June 2008

Declaration

The work presented in this thesis has been composed by the candidate Angela Bate. The material has not been previously submitted for a degree of any qualification at this or any university.

The thesis is the candidate's own work and all the work has been completed by the candidate. Parts of this thesis have been published elsewhere. An earlier version of Chapter 2 was published in: A. Bate, C. Mitton. Application of economic principles in healthcare priority setting. *Expert Review of Pharmacoeconomics and Outcomes Research*. 2006; 6(3): 275-284. Whilst an earlier version of Chapter 4 was published in: A. Bate, C. Donaldson, M.J. Murtagh. Managing to manage healthcare resources in the English NHS? What can health economics teach? What can health economics learn? *Health Policy*. 2007; 84: 249-261.

Acknowledgements

First and foremost I would like to thank my supervisors, Cam Donaldson and Madeleine Murtagh for their intellectual input as well as their outstanding patience. They have provided me with the support that I didn't think I would need, particularly during my field work and the last few weeks of writing. I would also like to thank Rachel Baker for her comments on some of the chapters which helped me to see things from a different perspective – to her I am very grateful. This work could also not have been completed without the input of all those interviewed and the support of the 'Commissioning Consortium' and local Strategic Health Authority.

I also could not have got to this stage without the support of my other colleagues and friends including Helen Mason, Laura Bojke, and Lisa Iversen, who have all kept me sane. Finally I would to thank my family and in particular Adam Hansen and T.J. (latterly Joe). Words cannot express my gratitude to them for the undivided support they have given me.

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List of Acronyms used in this thesis

BSC	Balanced Score Card
CE	Chief Executive
CEA	Cost Effectiveness Analysis
CEB	Consortium Executive Board
CBA	Cost Benefit Analysis
CUA	Cost Utility Analysis
DH	Department of Health
DPH	Director of Public Health
GP	General Practice
ICER	Incremental Cost-Effectiveness Ratio
HIG	Health Improvement Group
HIMP	Health Improvement Modernisation Plan
LDP	Local Delivery Plan
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
PAR	Participatory Action Research
PBMA	Programme Budgeting and Marginal Analysis
PbR	Payment by Results
PEC	Professional Executive Committee
PCT	Primary Care Trust
QALY	Quality Adjusted Life Year
SHA	Strategic Health Authority
UK	United Kingdom
WHO	World Health Organisation

Abstract

In the UK, healthcare resources are scarce and insufficient to meet all claims on them. Such scarcity has to be managed. Economics provides a set of principles for managing scarcity. However, economic methods have had limited impact on managing scarcity in healthcare decision-making. This thesis argues that economics must fit alongside the pragmatic necessities of everyday decision-making. The focus of this research was to work within an NHS organisation to consider how decision-making was organised and explore the potential for using health economics, using programme budgeting and marginal analysis (PBMA) as a vehicle to study how health economics can be informed by, and inform, the management of scarce resources in the 'real world'.

The research was conducted using a participatory action research (PAR) framework to study PBMA in three phases: before, during, and after its introduction into the organisation. Qualitative interview, observation, and focus groups methods were used to examine the organisational context prior to the implementation of PBMA, record the implementation of PBMA, and reflect on the implementation of PBMA. Through thematic qualitative analyses of these data sources, this thesis presents a rich description of the decision-making context and the inherent constraints; an account of how PBMA was applied; and the challenges of implementing PBMA.

These findings indicate that economics provides a set of principles for managing scarcity that are embedded in the discourses surrounding PCT commissioning. However, these principles are rarely borne out in the decision-making processes. Both strengths and weaknesses in the PBMA method, and barriers and facilitators in the application of PBMA were identified. More research is needed to integrate PBMA into the organisational culture, something that may come with further iterations of the PAR framework.

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Chapter 1 Introduction

Value for money is not a value, it's a means to an end – better care for the patient. If you are using money ineffectively, whichever government is in power and however much money you put in, you're going to be wasting some of that money. Every pound that you waste, that isn't spent on better patient care, is not spent on the values of the health service.

Interview with Tony Blair, former British Prime Minster. (Edwards, 2006b, pg.5)

1.1 Chapter overview

This thesis is broadly concerned with the concept of achieving value for money from scarce healthcare resources. Specifically, the thesis seeks to understand and develop the use of economics in the management of scarce healthcare resources as a means to delivering value for money in health services[a]. This chapter introduces the thesis, outlining the background to the research undertaken and detailing the context within which it was conducted. The chapter goes on to justify the research undertaken in this thesis and outline the research questions and design. Finally, the chapter lists the contributions of the thesis to research and policy and provides a summary of the forthcoming chapters.

1.2 Background

The background outlines the basic concepts and arguments that underpin the research conducted in this thesis. This briefly comprises an introduction to the basic economic problem of resource scarcity and the contributions of economics and health economics

[a] Herein the generic term, the 'health service' is used to refer to health services in the UK National Health Service and other healthcare systems more broadly.

to the management of resource scarcity in healthcare. These concepts and arguments and are also dealt with in further detail in Chapter 2.

1.2.1 Economics and managing scarcity

Economics as a discipline is founded on the notion that societal resources are scarce and that choices among the use of these resources have to be made. Economics is concerned with the study of choice under scarcity, and provides the theory and hence potentially some solutions to help manage such choices. As Samuelson notes:

> *Economics is the study of how men and society end up choosing, with or without the use of money, to employ scarce productive resources that could have alternative uses, to produce various commodities and distribute them for consumption, now or in the future, among various groups in society. It analyses the costs and benefits of improving patterns of resource allocation.*
>
> *(Samuelson, 1976, pg 5.)*

Given this it follows that economics, and specifically *health* economics ought to be able to play some role in aiding the management of scarce healthcare resources. In particular, it is argued by commentators that health economic theory and methods should be useful in making decisions about what health services to fund, to what extent, and, importantly, at what cost/sacrifice (Drummond and Donaldson, 2003). Indeed, promoting and teaching health economics for this purpose is widespread.

The use of health economics in the health service has tended to focus on the national level, in the context of assessing health technologies and centralised drug review processes such as that of the National Institute for Health and Clinical Excellence (NICE) in England and Wales (Ham and Robert, 2003, Neumann, 2005). Despite the

widespread adoption of health economics at this level, the extent to which this aids the management of scarce healthcare resources is debatable (McDonald, 2002, Coast, 2004. Prosser et al., 2000, Miller et al., 2006, Mitton et al., 2006). Indeed, as argued in Chapter 2, these processes may actually lead to increases in healthcare spending (Birch and Gafni, 2007b). Furthermore, beyond the national level, the use of health economic theory and methods is limited (Hoffmann et al., 2002, McDonald, 2002, Von der Schulenburg, 2001, Williams and Bryan, 2007, Hoffman and von der Schulenburg, 2000).

In particular, research on the use of economic evaluations by local health service decision-makers in practice has highlighted several barriers to the adoption of health economic methods. These include difficulties in accessing relevant information, lack of interpretation skills, insufficient supply of information in a timely fashion, and the relevance of the information in a given decision-making context (Neumann, 2005, Hoffman and von der Schulenburg, 2000, Kernick, 2000, Von der Schulenburg, 2001, Duthie et al., 1999). This has led some to question the value of using health economic methods in healthcare decision-making. Notably, in her study on the use of health economics in practice, McDonald (2002) identified several conflicts that arose when attempting to adopt what she referred to as 'rational' economic models in the seemingly 'irrational' decision-making processes at the level of the Health Authority, concluding that "rational health economic approaches to resource allocation are unlikely to be adopted widely at the local level in the NHS" (McDonald, 2002, pg.164).

In her work, McDonald (2002) emphasises the apparent disparity that exists between the rational, simple, theoretical, academic economic world of health economics and the irrational, complex, applied, practical world of healthcare decision-making. Such disparity is often used to position the academic economic world and the practical world of healthcare decision-making as polar opposites that cannot be brought together (Fox, 2006). In turn this legitimates the lack of use of health economics in the 'real world' of decision-making and, vice-versa, the lack of 'real world' pragmatism in health economics. Moreover, this disparity is further perpetuated by: health economists, who often seek to refine the methods they are working with, rather than consider the wider context into which they are being applied; and health service decision-makers, who often do not want to explicitly face the difficult and tough choices they have to make, preferring instead to do so implicitly.

Where research has been conducted on the use of health economics in the 'real-world' it has tended to focus on the use of economic evaluation, and health economics has tended to become equated with the use of published economic evaluation studies in healthcare decision-making, rather than the use of economics or the economic evaluation method per se (Hoffman and von der Schulenburg, 2000, Honigsbaum et al., 1995, McDonald, 2002, Neumann, 2005). However, programme budgeting and marginal analysis (PBMA) offers a *process* for decision-making that is based on the same economic principles and foundations as economic evaluation and thus it has been advocated as an alternative approach that can overcome many of the problems associated with the use of economic evaluation in decision-making (Mooney, 1992). Indeed, as an early proponent of PBMA observed, the process would not in itself "provide answers to problems or make decisions for managers, displace management judgement, wisdom, or experience.

determine objectives, not judge performance", but "will enlighten major decision issues and help managers to manage better" (Novik, 1965, pg.73).

Research on PBMA has shown that it has been used in healthcare decision-making for almost three decades, in at least 70 health authorities across the UK, Australia, and Canada (Mitton and Donaldson, 2001). In the UK, there is evidence that PBMA was adopted by the health service in the 1970s for making decisions over the allocation of healthcare resources (Bevan et al., 1980, Perrin et al., 1978), although it was not established as a routine practice, and interest in PBMA seemed to wane. Following the purchaser-provider split in the early 1990s, PBMA again came to the fore. During this time, several one-off applications of PBMA were conducted in specific healthcare service areas and localities (Ratcliffe et al., 1996, Scott et al., 1998, Craig et al., 1995, Twaddle and Walker, 1995, Ruta et al., 1996, Madden et al., 1995). Since then, research on PBMA in the UK has been limited, although some new applications have accompanied the formation of PCTs, the launch of the National Programme Budgeting Project, and the Department of Health's continued emphasis on achieving value for money in the health service (Wilson et al., 2007, Wilson et al., 2006, Brambleby, 2004, McIver et al., 2000). However, much of the research on PBMA has tended to rely heavily on academic input and simply sought to implement PBMA from the academic perspective. As a result, many of these studies reported problems with the implementation of PBMA that reflected those associated with economic evaluation above, and were unable to demonstrate the extent to which PBMA influenced decision-making and thus the management of scarce resources.

Nevertheless, the seeming failure of health economic methods to impact on decision-making does not necessarily imply the failure of economics and economic principles per se. This thesis argues that research on use of economics in healthcare decision-making should focus on studying and understanding the context of decision-making and the broader management and organisational environment, and that any method has to fit alongside the pragmatic necessities of everyday decision-making in the 'real-world' and support decision-making on an on-going basis. Recent research, particularly in Canada and Australia, has led to a number of advances in the application of PBMA, and attempts have been made to ensure that it is less mechanistic than in the past, thereby recognising the need to balance pragmatic and ethical considerations with economic rationality (Patten et al., 2006, Duthie et al., 1999, Gibson et al., 2006b, Mitton and Donaldson, 2004). The research presented in this thesis attempts to explore the potential for using health economics in the context of the English NHS. Specifically, the research adopts a population perspective to decision-making, focussing on commissioning to study the use of health economics in the management of scarce resources, using PBMA as a vehicle. This research builds on that undertaken by McDonald in the UK which focussed solely on economic evaluation, to study the use of health economics and health economic principles more broadly in decision-making, and utilises and develops the research design and method employed by Patten et al. (Patten et al., 2006) in studying the use of PBMA in Canada. As such, the research is unique in its application, not only in the UK context, but also internationally.

1.3 Context

This section outlines the context within which the research described in this thesis was conducted, providing an introduction to the English NHS and its organisation and

structure, the concept and role of commissioning in managing scarce healthcare resources and its origins and evolution through health service reforms.

1.3.1 The English NHS

The NHS in England can be described in terms of three main functions: setting the strategic direction for the NHS, commissioning or purchasing health services for the population in line with the defined strategy, and providing or delivering the commissioned health services. These functions are fulfilled by the respective organisations that constitute the NHS. The Department of Health (DH), through the Secretary of State for Health, is ultimately responsible for the NHS and determining strategy, whereas the Strategic Health Authorities (SHAs) are responsible for implementing strategy at the regional level. Primary Care Trusts (PCTs) and some General Practices are responsible for commissioning on behalf of defined geographical populations; and hospitals, General Practices, and private organisations are responsible for providing both secondary and primary care services. The present structure of the NHS in England is outlined in Figure 1.1. The focus of this thesis is on the commissioning function of the NHS, and more specifically the role of PCTs in undertaking and performing this commissioning function.

1.3.2 Commissioning in the English NHS

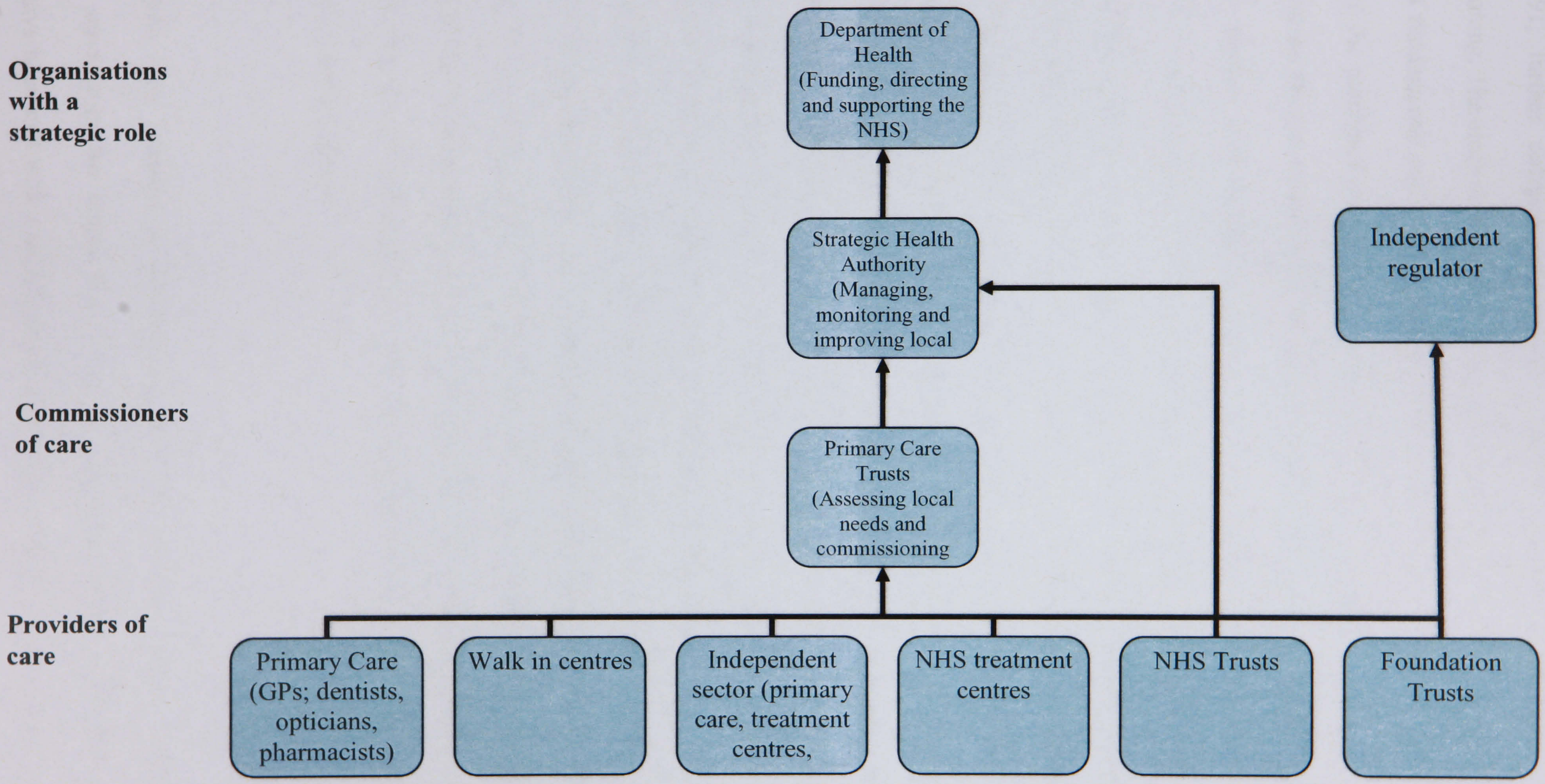
Commissioning has recently been defined by the Department of Health as "the means by which [the NHS] secure[s] the best value for patients and taxpayers", with best value defined as: "the best possible health outcomes, including: reduced health inequalities; the best possible healthcare; within the resources made available by the taxpayer"

(Department of Health, 2006, pg.7). In other words, commissioning involves undertaking a set of activities that ensure that NHS resources are allocated fairly, effectively, and efficiently. However, commissioning is not new.

Initially, the concept of commissioning in the health service was introduced in the reforms of 1989 (the White Paper, Working for Patients) and 1990 (the National Health Service and Community Care Act) (Levitt et al., 1999, Ham, 2004). It was under these reforms that the main purchasing and providing functions of the NHS were split. District Health Authorities, funded through resources allocated to them from the DH, were responsible for purchasing secondary healthcare services on behalf of the populations they served from a set of providers (primarily Hospital NHS Trusts). In addition, GP fundholders acted as both providers and purchasers of healthcare, able to purchase a limited range of services from other providers and managing their own budgets. Under these arrangements, the quality, quantity, and cost of the services purchased by the Health Authorities and GP fundholders had to be negotiated and explicitly stated in contractual arrangements with the Hospital NHS Trusts. It was noted by Ham and Robert (2003) that the purchaser-provider split transformed the context for organising and delivering healthcare services, shifting toward more explicit decision-making and accountability. This shift was also accompanied by a change in rhetoric, with terms such as commissioning, rationing, and priority setting being used to describe the 'New NHS' which could not provide everything for everyone (Hunter, 1993b, Klein, 1993, Klein, 1995).

Figure 1.1. Organisational structure of NHS in England (Adapted from Talbot-Smith and Pollock, 2006, pg.8)

(⟶ direction of accountability)



Since 1991, further political reforms have continued to emphasise the role of commissioning. The election of the Labour Government in 1997 saw the introduction of a series of fundamental and comprehensive changes to the NHS – a 'New, New NHS'. In England the purchaser-provider split was maintained but the purchasing power was shifted from the District Health Authorities and GP fundholders to Primary Care Groups (and later, Primary Care Trusts (PCTs)) as a way of retaining the primary care led approach to commissioning introduced through fundholding combined with the population focus and strong accountability adopted by the District Health Authorities (Ham, 1997b). Established in 2002, initially 303 PCTs covered the entire population of England. Through mergers, this number has since been reduced to 152. The PCTs control around 80% of the total NHS budget (Talbot-Smith and Pollock, 2006) and, with a remit wider than that of the Health Authorities they replaced, they are charged with commissioning primary care, hospital, community and mental health services for their local communities (Department of Health, 2001). In fulfilling their commissioning role, PCTs are expected to: assess local health needs; plan and secure health services; improve health, within the framework of NHS standards and guidance; and remain accountable, through the SHA, to the Secretary of State (Department of Health, 2001). Above all, PCTs are also required to fulfil this role in line with the financial duties stipulated in the National Health Service Act 1999 (The National Health Service Act. Insertion 97D to the 1977 Health Act, 1999), which specified that a PCT's expenditure should not exceed its income.

The reforms were intended to produce stronger commissioning bodies and more effective services in the longer term (Audit Commission, 2008). However, these reforms have been met with a mixed response and the extent to which commissioning

has been active in PCTs has been questioned by several commentators (Smith and Mays, 2005, Ham, 2006, Harding, 2006, Maynard and Street, 2006, National Audit Office and Audit Commission, 2006, Smith et al., 2004). Indeed, this is reflected in the healthcare performance assessments conducted by the Healthcare Commission in England. In 2006, 92% of PCTs scored 'fair' or 'weak' for use of resources (based on an analysis of PCT financial management, financial standing, and value for money); and no PCT achieved a score of 'excellent' (Healthcare Commission, 2006). Moreover, a greater proportion of lower scores was achieved by PCTs in the latest annual health check by the Healthcare Commission which included the PCTs use of resources derived from the Audit Commission's Auditors' Local Evaluation (Audit Commission, 2008).

Despite the crudeness of this type of assessment, these figures highlight that PCTs have struggled to manage resources. Furthermore, at the end of the financial year of 2005/6 the NHS recorded a gross deficit of GBP£1.2billion which was explained by poor central management, lack of financial management skills, poor information, and lack of ownership of plans within individual organisations (King's Fund, 2006, House of Commons Health Committee, 2006, Bamford, 2005, Maynard and Street, 2006). Additionally, the struggle to manage resources has been recognised by some in the English NHS who have responded by calling for ways to better manage the delivery and organisation of healthcare services and resources whilst explicitly accounting for the political and structural context within which they work (Edwards et al., 2006, Goodwin, 2006a, Goodwin, 2006b, Edwards, 2006a). Nevertheless, these concerns are not new.

The problem of the management of scarce resources in the NHS has existed since its conception some 60 years ago. However, until the recent launch of the World Class Commissioning initiative in late 2007 (Department of Health, 2007), there has been little guidance from the DH on how to manage scarce resources and, thereby, how to commission effectively, by achieving best value for patients and taxpayers through ensuring that NHS resources are allocated fairly, effectively, and efficiently. To some extent this is probably because there is little consensus among politicians or the academic community on the appropriate way to manage healthcare resources (Hunter, 1993a, Hunter, 1995, Klein et al., 1996, Ham and Robert, 2003, McCulloch, 2003, Mitton and Donaldson, 2004, Klein, 1995, Klein, 1998).

1.4 Justification for the research

It has been argued above that health service commissioning is about ensuring that NHS resources are allocated fairly, effectively, and efficiently. However, PCTs responsible for commissioning have had little guidance on commissioning and are therefore struggling to take on the role, and are consequently failing to adequately manage scarce resources. However, health economics seemingly provides a theoretically valid, 'rational', and systematic set of principles for managing scarcity, but has been shown to be difficult to apply in practice and has had a limited impact in the 'real-world'.

Reflecting on the uptake of health economics and the translation of health economic evidence into practice, Maynard concluded by suggesting that: "the health economist has to be the imperialist, drawing the ignorant into enlightenment..." (Maynard, 2006, pg.420). However, if health economics is to have any impact on managing scarcity in

practice, the challenge faced by health economists is surely that of translating health economic principles into management practices that recognise scarcity and the intricacies of NHS commissioning and decision-making. This thesis therefore argues that the health economist should be anything but an "imperialist" and that, just as decision-makers may need to better understand how to apply health economic methods, then health economists may need to better understand the context in which these methods are or are not being used. Moreover, by acknowledging the importance of contextual factors and the pragmatics of commissioning, health economists may be able to identify the barriers faced by decision-makers in adopting their methods in practice which can then be addressed in adapting them for future use. Indeed, as Jan et al. (2003) assert: "because health economic analysis has tended to be largely normative, there has generally been a lack of appreciation of why such decision making sometimes 'fails'", therefore studies "that examine economic decision-making *within* its institutional context" offer "greater insight into why such failure occurs and ultimately provide a more realistic basis for decision-making" (Jan et al., 2003, pg. 434). As such, Mooney and Wiseman (1999) state that "health economists … [need to] look into the decision-makers' minds and to try to understand what the objective function is with which they are working". Significantly, undertaking such research requires health economists to consider alternative research paradigms to those they have become aligned with or adopted, drawing heavily upon qualitative, as opposed to quantitative, research, and fostering an interactive and iterative approach.

The research presented in this thesis therefore focussed on working within and alongside an NHS commissioning organisation to identify and understand how commissioning was organised, and to explore the potential for the use of health

economics, using PBMA as a vehicle to study, through a range of qualitative research methods, how health economics can be informed by, and inform, the management of scarce resources in the 'real-world'.

1.5 Research questions

Following from above, the aim of the research was about understanding and developing the use of economics in the management of scarce healthcare resources, using PBMA as a vehicle to introduce economic principles into the commissioning process. Specifically, the research attempted to answer the following questions:

1. What are the main approaches to managing scarcity in theory?
2. How is scarcity managed in PCTs and through commissioning practice?
3. Can economic principles to managing scarcity be incorporated into commissioning practice?

In order to answer these questions, the objectives of this research are:

- To identify approaches to managing scarcity in the health services research, management, economics, and ethics literatures.
- To examine PCT decision-makers' views on managing scarcity and commissioning – specifically how commissioning is understood in principle, and how this translates in practice.
- To develop, implement, and observe the application of PBMA as a framework for managing scarcity to fit with the organisational structure of PCTs, and to account for the barriers and facilitators of such implementation.
- To evaluate how the PBMA framework is interpreted and reconstructed by users within the PCT and whether the use of the framework results in improved process and management of scarce resources.

1.6 Research design

The first of the research objectives involved conducting a literature review to identify current approaches to managing scarcity in the health services research, management, economics, and ethics literature. The remaining three objectives formed the substantive part of the research for this thesis. In order to address these objectives a qualitative research design was adopted, utilising a participatory action research (PAR) approach as a framework for conducting and presenting the research that enables the iterative development and implementation, and refinement of PBMA through the research process. The PAR consisted of three phases of research to study PBMA prior to, during, and after its introduction into the commissioning organisation. At each phase, qualitative methods of data collection and analysis were used. These phases are illustrated in Figure 1.2, and discussed in more detail in Chapter 3. In Phase I, the current organisational context, processes, and practices into which PBMA (as the focus of change) was being introduced was examined using in-depth one-to-one interviews with decision-makers to identify how commissioning was undertaken in theory and practice, and to gather their reflections on current commissioning processes. In Phase II, PBMA was introduced into one healthcare organisation and developed iteratively and interactively with decision-makers, stakeholders, and researchers. Ethnographic approaches were used to observe the implementation of PBMA in terms of the application and adaptation of PBMA to the organisational context, organisational dynamics, participation and motivation, and potential challenges to implementation. In Phase III, focus groups with the decision-makers and stakeholders, involved in the research were used to gather reflections on the PBMA process, identifying specific challenges to implementing PBMA, suggestions for refinement of the process, and the prospects for the long term sustainability of PBMA in the organisation.

The research took place during 2004-2007 and focused on one healthcare region in the North of England. At the time, the PCTs in the region were responsible for commissioning healthcare for population of approximately 1.4 million people and, in 2004, held a combined annual operating budget of approximately GB£1.9 billion. During the research there were several on-going changes in management and policy that impacted upon the organisation studied. In particular, changes such as the introduction of performance assessment and the use of star ratings by the Commissioning for Health Improvement (later Healthcare Commission), affected the stability of the organisation, the behaviour of those working within the organisation, and the research.

Figure 1.2 PAR Phases

YEAR	PAR PHASE		POLICY AND ORGANISATIONAL EVENTS
2004	PHASE I: planning a change	Identification of current approaches to managing scarcity and examination of current commissioning context: literature review and interview methods	Local PCTs form Commissioning Consortium Introduction of patient forums Introduction of the Commisison for Healthcare Audit and Inspection (CHI) First wave of Foundation Trusts established Commissioning Consortium moves into own premises First National Programme Budget data available
2004/5	PHASE II: acting and observing a change	Introduction and observation of PBMA in commisisoning consortium: ethnographic methods	Modernisation Agency replaced by NHS Institue for Improvement and Innovation Introduction of Independent Treatment Centres Introduction of direct payments in social care Local Delivery Plans submitted to SHA
2005/6	PHASE III: reflecting on a change	Identification of challenges and reflections for refinement of PBMA: focus group methods	General election, new health secretary appointed NHS financial deficit announced Introduction of Payment by Results National Tariffs Introduction of Practice Based Commissioning CHI replaced by the Healthcare Commission Commissioning Consortium Chief Execuitve leaves (interim appointed) Number of SHAs reduced from 28 to 9 Number of PCTs reduced from 303 to 152 Interim CE leaves Commissionning Consortium (another interim appointed)
2007		Write up	Replacement of Patient Forums with Local Invovlement Networks Introduction of World Class Commissioning

1.6.1 Methodological issues

Although the focus of this research is on studying commissioning and the use of health economics frameworks (specifically PBMA) in commissioning, a number of methodological issues are also of interest. The use of qualitative research in the study of health economics is not widespread and this study is unique in its application of the PAR methodology to PCT commissioning. In this research, the methods of data collection and analysis extend beyond a simple descriptive analysis to the analytical, to explore underlying tensions in the use of economics in commissioning. Moreover, the use of PAR in this research builds upon previous work that has attempted to use qualitative research in the study of health economics but has stopped short of addressing the implications for health economics (McDonald, 2002). The focus of this research is on action and interaction, not just explanation. The research is therefore also concerned with developing PBMA methods and adapting them to meet the needs of decision-makers for commissioning who are collaboratively involved in undertaking the research.

1.7 Contributions of the thesis to research and policy

As a result of the research, this thesis offers the following contributions to both health economics and health policy:

- Development of a comprehensive thick description and a new conceptual model of PCT commissioning in England.

- Advancement of the use of rigorous qualitative research in health economics through the unique application of a participatory observation approach to study the use of economic principles in the context of PCT commissioning in England.

- Advancement of the PBMA literature from the use of PBMA as a method or 'tool' for decision-making, to the use of PBMA as a vehicle for introducing economics into the decision-making process in an iterative and inclusive way.

- Development of general lessons for the application of economics and PBMA, not only with respect to PCT commissioning but in any context that requires the management of scarce resources.

1.8 Thesis outline

The remainder of this thesis is organised as follows. Chapter 2 presents an overview of economic theory as applied to the management and allocation of scarce resources, and critiques approaches used to manage scarcity in practice identified from the literature. In this chapter, PBMA is highlighted as an approach that adheres to economic principles and thus offers a potential vehicle through which economic principles can be applied in the management of scarce healthcare resources in practice. Chapter 3 outlines the methodology and methods adopted in studying the application of PBMA, advancing the use of qualitative methods in health economics. The research adopts a qualitative approach, and is unique in its application of PAR to the context of PCT commissioning in England to study the iterative development of the use of economic principles, through the vehicle of PBMA. The PAR framework is conducted in three phases, studying PBMA prior to, during, and after its introduction into a commissioning organisation. Chapter 4 presents the results from the interviews undertaken in the first phase of the PAR. This chapter provides a thick description of the current commissioning context and the constraints inherent in the commissioning process, which led to the development of a new conceptual model for commissioning. Chapter 5 presents the results from the first part of the second phase of the PAR, and describes the implementation of the action (PBMA) as it was applied within the commissioning organisation. Chapter 6 reports the results from the second part of the second phase of PAR. This chapter draws on the analysis of the observation of the implementation of PBMA to build an account of how PBMA was applied, how it was received, and how it was adapted. In addition, this chapter also presents the results from focus groups

undertaken in the third phase of the PAR to reflect on the challenges of implementing PBMA. Finally, Chapter 7 presents a discussion of the results of the thesis along with the methodological limitations of the research and the implications for policy and future research, identifying some general lessons for the application of economics with respect to PCT commissioning and in other contexts involving the management of scarce resources.

Chapter 2 Managing scarcity in theory and practice: a critical review of the economics and health services literature

2.1 Chapter overview

The previous chapter (Chapter 1. Introduction), introduced the notion that healthcare resources are scarce and that choices over the use of resources have to be made and managed accordingly. Furthermore, the previous chapter also advocates economics, as a discipline founded on the study of choice under scarcity, as providing the theory and hence potentially some solutions to help guide such choices. Indeed, in the words of Drummond and Donaldson (2003) "in the land of blind decision-making" the "one-eyed economist" may be king.

This is not to say that economics will provide an easy solution to making difficult choices over scarce resources. On the contrary, the economic theory, economic principles, and approaches discussed throughout this chapter are not designed to replace such decision-making, but merely aid it. In this sense, what is being argued here is that economics provides an appropriate normative basis for decision-making from which further judgements must be made.

The rest of this chapter focuses specifically on a review of economic theory and the inherent principles embedded within it, as it applies to the management and allocation of scarce resources. Following this, approaches to managing scarcity are identified from the national and international literature in health services research, management,

economics, and ethics; and are critiqued with respect to whether they fulfil these key principles – the logic presented here being that failure to do so will result in the failure to manage scarcity. This narrow focus was adopted on the basis that the thesis is primarily interested in examining the use of economic principles in decision-making, recognising the complexity of the environment in which they are applied. However, it is recognised that additional economic literature relating to decision-making theory more broadly may also be of relevance, particularly in explaining the complex environment in which decision-makers operate. Of interest is the literature around individual (decision-maker) behaviour that is explored in the theories of rational decision-making and agency relationships in decision-making.

In brief, the former of these theories argues that according to classical decision-making, decision-makers know all the alternatives for dealing with a particular decision-making problem, the utilities and values of these alternatives, and are able to articulate their preferences for the alternatives (Sloman, 1997). However, this rational model of decision-making has been criticised by many who argue that individual decision-making (particularly in the health service) involves "satisficing" (choosing the set of alternatives that is good enough) (Simon, 1947) or "muddling through" (choosing alternatives on the basis of making incremental changes) (Lindblom, 1959, Maddox, 1971). In terms of agency relationships in decision-making, it is argued that agents (employees of the firm, or in health, decision-makers employed by health care organisations to act on behalf the population or citizens (Coast, 2001)) will not necessarily always act in the best interests of the citizens. Indeed the agent may choose to select alternatives in order to pursue their own goals or objectives that are different to those of the citizens (in other words, they maximise their own utility rather than that of the citizen) (Donaldson and Gerard, 2005, Lipsey, 1975, Coast, 2001). Common

solutions identified to tackle this problem include the use of incentives to induce agents into behaving in the citizens' interests.

The intention is not to review the theories of rational decision-making and agency relationships in depth in this chapter rather they are further discussed when interpreting and discussing the findings from the thesis in light of this literature in Chapter 7.

2.2 Managing scarcity using economic theory

As noted earlier (Chapter 1 Introduction), the basic economic problem of managing the allocation of resources is borne from the notion that societal resources are scarce and that choices about the use of these resources have to be made. In economic terms these choices are broadly concerned with the use of resources in terms of the production and consumption of goods and services, and include decisions about what goods and services should be produced, how they should be produced, and who should receive them (how they are distributed) (Morris, 1998). The standard economic response to resolving such decisions is rooted within market theory. This section outlines the theory of the market to illustrate the key inherent principles that lead to the optimal allocation of resources and goes on to show that market failure in healthcare results in the modification of these principles. Although market failure is generally accepted by health economists, the replacement of the market by an NHS (in the case of the UK), does not eliminate scarcity and the need to make choices. As such, some market principles can be applied in the more social decision-making context of the NHS. It is therefore important to understand the market and the origin of these principles.

2.2.1 The market

A market can be defined as any institution where parties can communicate with each other to buy and sell goods and services (Morris, 1998). The market is a mechanism through which society can address the basic problem of resource scarcity and solve the questions about what goods to produce, how, and for whom (Lipsey, 1975). Markets are therefore desirable as, in theory, they lead to an optimal use of limited resources. In a market, decisions about the allocation of resources are taken by individual agents, namely producers and consumers. Producers supply goods and services to consumers who will demand and purchase goods and services in line with their preferences (wants and desires). The supply and demand of goods and services is regulated through adjustments in the quantity and price at which goods or services are produced and consumed (Ison, 1996).

In a perfect market, producers aim to maximise their individual welfare (by producing the goods supplied at a profit) and consumers aim to maximise their individual welfare (by consuming the goods that they demand at a price that they are willing to pay). At the point where demand equals supply, both producers and consumers are satisfied by the exchange of services and the market is referred to as being in equilibrium (Donaldson and Gerard, 2005). When demand does not equal supply, consumers and producers respond to this through adjustments in the quantities and price of goods and services produced and consumed. Where a good is in excess demand (i.e. the quantity demanded is greater than the quantity supplied, at a given price), this indicates that more consumers (than can obtain the good) value the good as equal to or in excess of the price. Producers, recognising this, will therefore respond to this signal by increasing the price of the good, which due to an increase in the profits obtained from producing the

good will, in turn, lead to an increase in supply of the good and an increase in costs to cover production. When the price of the good increases, demand for it will decrease because not as many consumers as before will value the good as equal to or in excess of the new price. Changes in the quantities supplied and demanded continue to expand and contract until the two are equal and demand equals supply (Donaldson and Gerard, 2005, Morris, 1998, Lipsey, 1975).

Embedded in the theory of the market are three important economic concepts which are outlined in detail here and revisited throughout this chapter. These are opportunity cost, the margin, and efficiency.

Opportunity cost

The concept of opportunity cost is derived from the notion that when having to make choices over scarce resources certain opportunities will be taken up while others must be left (or forgone). A decision to use resources in one way means that an opportunity to use those resources in an alternative way is forgone (Mooney, 1992). The opportunity cost is the forgone opportunity associated with the next best use of resources (Lipsey, 1975).

In the market, when consumers choose to allocate resources to some goods or services they also pass up the opportunity of consuming other goods or services. Similarly, when producers choose to allocate resources to the production of some goods or services, they pass up the opportunity to produce other goods or services. The opportunity cost of a

decision to invest resources one way is equal to the quantity of the other good that could have been consumed or produced (Lipsey, 1975). In a perfect market where consumers strive to maximise their own welfare, and producers strive to maximise profit, consumers and suppliers implicitly minimise opportunity costs.

The concept of opportunity costs emphasises the importance of considering (and valuing) alternative uses of scarce resources in making choices about such uses.

The margin

Decisions by consumers and producers about how much of good to consume and how much of good to produce are made at what economists refer to as 'the margin' (Mooney, 1992). Strictly the margin refers to the difference when one additional or one less unit of something is observed (Mitton and Donaldson, 2004). The decision about whether the extra unit is worthwhile (producing or consuming) is considered in terms of the opportunity costs arising through additional consumption and production (Lipsey, 1975). Such trade-offs are, in a perfect market, made at the individual level.

In consumption, the additional (marginal) satisfaction that consumers derive from consuming a good tends to fall as the quantity consumed increases. In other words, the satisfaction derived from consuming the first unit of a good is greater than the additional satisfaction derived from consuming each subsequent unit. In line with maximising their own welfare, consumers will therefore allocate scarce resources in such a way that the marginal satisfaction derived from consuming a mix of goods is

equal for all goods. Where the marginal satisfaction of consuming the last quantity of a good is lower than the marginal satisfaction that could be obtained from consuming another good (at the same price), the opportunity cost of consuming more of the first is too great and consumers will move resources in such a way to consume more of the second good from which more satisfaction can be derived (Ison, 1996, Morris, 1998, Lipsey, 1975).

In production, the additional cost (marginal cost) of producing additional quantities of goods increases with each additional quantity of good produced. Producers, in line with achieving profit maximisation, will allocate scarce resources in such a way that they invest in the mix of goods where the additional costs of producing each of the goods is equal to or lower than the price at which it is sold. Where the marginal cost of producing the last quantity of a good exceeds the price of the good, the producer will make a loss. The opportunity cost of allocating resources in this way is too great, and producers will shift these resources into the production of another good where a profit can be made, or, where several profit-making goods are involved, where greater returns can be made (Lipsey, 1975, Morris, 1998, Ison, 1996).

Efficiency

Put simply efficiency is "about getting the most out of the resources available" (Mooney, 1992, pg.8). Achieving efficiency is inextricably linked to the concept of opportunity cost because in order to get the most from available resources, opportunity costs are minimised (Donaldson and Gerard, 2005). In economics it is possible to distinguish between two types of efficiency: technical (or operational) efficiency –

concerned with whether resources are used efficiently in the production of goods and services; and allocative efficiency – concerned with whether resources are allocated efficiently across the different goods and services produced.

Strictly, technical efficiency is about achieving a given level of output for minimum input (cost) or a maximum level of output for a given level of input (cost) (Mitton and Donaldson, 2004). Technical efficiency is achieved when it is not possible to reallocate resources to produce a given output with less of (at least) one input and no more of another (Gravelle and Rees, 1992).

Allocative efficiency is about whether something is worth doing given its opportunity cost (Mitton and Donaldson, 2004). In other words, whether the benefit from the use of resources to produce a bundle of goods or services is greater than the best alternative use of those resources. Allocative efficiency is achieved when it is not possible to reallocate resources in such a way to make at least any individual in society better off without simultaneously making anyone else worse off (Lipsey, 1975).

In the perfect market, consumers, aiming to maximise their welfare through the satisfaction that they derive from the consumption of goods, will allocate resources to the bundle of goods from which they can derive most satisfaction from the resources available, thus achieving allocative efficiency. At the same time, producers, seeking to maximise profits, will compete for consumers and respond to demand by supplying the goods valued by consumers at the lowest possible price, thus achieving technical efficiency by maximising output with respect to cost or minimising cost with respect to

output. In this situation there is no waste in the system – everything supplied is demanded and vice-versa, and what is supplied is done so at minimum cost. At equilibrium, the market provides an optimal solution for the allocation of scarce resources that minimises opportunity costs through decisions and implied 'analysis' at the margin, and is technically and allocatively efficient (Donaldson and Gerard, 2005).

2.2.2 Market failure in healthcare

In order to achieve such optimal outcomes, perfect markets require five main conditions to hold: several small suppliers to promote genuine competition, perfect knowledge, certainty, no externalities, and consumers acting free of self-interested advice from suppliers (Dolan and Olsen, 2002, Donaldson and Gerard, 2005). However, in the context of healthcare, these conditions rarely exist and healthcare markets have been shown to be characterised by monopolistic power, imperfect knowledge, uncertainty, externalities, and exploitation (Morris, 1998, McGuire et al., 1988, Evans, 1984, Donaldson and Gerard, 2005). Since perfect market conditions do not hold, the use of markets in healthcare fails as an efficient method of allocating resources. The extent of market failure raises issues about whether and how the basic economic theories of supply and demand can be applied to or modified for healthcare.

The dominant paradigm through which these issues are constructed is that of welfare economics. Welfare economics is concerned with judging the desirability of a particular social situation. The normative propositions underlying welfare economics state that the desirability of situations should be judged solely upon the level of welfare attainable by the group(s) of individuals affected (Varian, 1996). Central to welfare economics are

tools for measuring welfare and judging whether such situations are desirable (Johansson, 1997). The basic value judgement used in welfare economics to determine whether one situation is more or less socially desirable than another is that of Pareto optimality. The principle states that a situation will be socially desirable if some individual(s) are made better off without making others worse off (Gravelle and Rees, 1992). Therefore a Pareto optimal solution is one where societal resources are allocated in such a way that individual(s) welfare cannot be increased without simultaneously decreasing the welfare of other individual(s). A Pareto optimal allocation of resources is both technically and allocatively efficient (Donaldson and Gerard, 2005).

However, Pareto optimality says nothing about the desirability of a situation where some individuals(s) in society are made better off whilst others are made worse off. The Pareto optimality principle was therefore revised by Kaldor and Hicks who argued that one state could be meaningfully judged as better than another from an economics perspective using the compensation principles which say that a state is considered to be a potential Pareto improvement if those gaining can hypothetically compensate those who lose and still remain better off (Gravelle and Rees, 1992, Johansson, 1997). In other words, welfare improvements to gainers have to be large enough to hypothetically compensate the welfare lost by those losing. In theory, nobody is worse off and society overall is better off, although in reality some individuals may in fact be made worse off. Therefore, some Pareto optimal allocations may not be socially desirable if we also assume that society is concerned with other values about what may be desirable such as equity and what is 'just' (Mooney, 1992, Reinhardt, 1992). These considerations require additional value judgements about whether equal shares are preferred to greater overall health gain (as an example) when deciding whether one distribution of resources is

better than another (Dolan and Olsen. 2002). Such equity arguments therefore necessarily compromise efficiency (in the Pareto sense).

The relative weight given to these considerations depends on the extent to which notions of efficiency and equity can be traded-off. One way in which such trade-offs can be determined is through the specification of a social welfare function (of one form or another), which can capture the welfare effects of a particular allocation of resources through some interpersonal comparison of the welfare effects on individuals (as members of society) for that allocation and individual preferences for that distribution (Varian, 1996). Although it has been shown that a consistent ranking of social states is untenable (Arrow, 1978), social welfare functions (modified by relaxing some of the strict conditions on the ordering of social preferences) nevertheless provide a useful basis for comparing the effects of resource allocation decisions and thus evaluating welfare impacts of potential state changes (decisions) upon and within society (Johansson, 1997).

Welfare theory underpins all health economic approaches to evaluating decisions about the use and allocation of healthcare resources (Hauck et al., 2003). Welfare effects are captured in terms of measures of benefits and costs, benefits being what is gained (in the broadest sense by individuals and society overall[b]) from meeting a particular healthcare need, and costs being the benefit that would have been obtained from an

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[b] A philosophical discussion of what constitutes benefit and how this is captured is beyond the remit of this thesis. Suffice to say that benefit can be broadly defined in terms of welfare or narrowly defined in terms of honing in on some specific attributes that constitute welfare. Different perspectives are adopted in the various forms of evaluations conducted in health economics. For a comprehensive summary of these arguments see Sloan, F. A. (1996) *Valuing Health Care: costs, benefits, and effectiveness of pharmaceuticals and other medical technologies.* Cambridge: Cambridge University Press.

alternative use of those resources – or opportunity costs (Jefferson et al., 2000. Drummond et al., 2005). The focus of benefit and cost measures is at the margin which refers to the additional unit of benefit gained or lost (i.e., marginal benefit), or the additional unit of cost invested or disinvested (i.e., marginal cost), for alternative competing allocations of resources. This focus avoids having to measure all the costs and benefits of all existing healthcare activities on an ongoing basis. An efficient allocation of resources is one which increases social welfare by deploying resources in such a way so as to maximise benefit for a given level of resource input or achieve the same level of benefit for a reduction in the amount of resource input both within (to achieve technical efficiency) and across (to achieve allocative efficiency) programmes of healthcare (Donaldson and Gerard, 2005). Using these principles, all other things being equal, benefit can be maximised within the constraints of a fixed budget (i.e. an efficient allocation of resources can be achieved) if resources are allocated away from those healthcare activities where, at the margin, the opportunity costs outweigh the benefits gained, and towards healthcare activities where, at the margin, the benefits gained are equal to or outweigh the opportunity costs.

The extent to which the economic principles of opportunity cost, the margin, and efficiency are realised, implicitly or explicitly, in current approaches to healthcare resource allocation and prioritisation decision-making is considered below.

2.3 From economic theory to practice

The following sections examine how approaches to managing scarcity reported in the literature compare in terms of whether or not they adhere to the above principles. To

identify these approaches a number of databases were searched. The core bibliographic databases used were: OVID (MEDLINE) (1966-), EMBASE (1980-), science citation index (1981-), social sciences citation index (1981-), arts and humanities citation index (1981-). In addition, Cambridge Scientific Abstracts (CSA) and EconLIT were used. Though not a systematic review, a search strategy was used, formulated using combinations of controlled vocabulary (including MESH headings where available) and free text terms. Furthermore, bibliographic searching was supplemented by citation searching of key articles and reviewing references from key texts. Texts were reviewed with regard to their suitability and stored in the bibliographic software package Endnote (http://www.endnote.com).

Approaches in the literature were identified on the basis that they provided a method or set of tools or principles for guiding the management of scarcity. Approaches for evaluating the process of managing scarcity such as accountability for reasonableness (Daniels, 2000), were not included. The approaches identified could be broadly divided into economic approaches and health service approaches. Economic approaches were: economic evaluation, quality adjusted life year (QALY) league tables, and programme budgeting and marginal analysis (PBMA). Health service approaches were: needs assessment, core services, national policy guidelines, and balanced score card. The background to and a critique of each of these approaches is presented in turn below.

2.3.1 Economic evaluation

Background

The term 'economic evaluation' encompasses the techniques of cost-effectiveness analysis (CEA), cost-utility analysis (CUA), and cost-benefit analysis (CBA) (Drummond et al., 2005). When used appropriately, the primary strengths of these evaluations are that both costs and outcomes are considered, and that one treatment can be directly compared with another in terms of incremental gains for incremental resources expended. This ensures that changes in costs and benefits are the key outcomes (Donaldson and Gerard, 2005). CEA and CUA are most commonly used in health technology assessments to determine the 'cost-effectiveness' of medical interventions (Birch and Gafni, 2007b, Bryan et al., 2006). They are presented as being concerned with maximising health gains from the use of available resources (or getting 'the biggest bang for the bucks' spent). The analytical tool used in such analysis is the incremental cost-effectiveness ratio (ICER) – a 'measure' of the relative cost-effectiveness of an intervention as compared with (usually) current practice. This is calculated as being the difference in costs between the intervention under evaluation and the current approach (the incremental cost) divided by the difference in outcomes (benefits (commonly assessed using QALYs)) between the intervention under evaluation and the current approach (the incremental benefit) (Gold et al., 1996). The results of such analysis are usually presented in two ways to determine the cost effectiveness of interventions. First, interventions can be compared by ranking them by ICER alongside other claims on resources. Those ranking higher are relatively more cost effective than those lower in the table (see reference to QALY league tables below, section 2.3.2) (Lord et al., 2004). Second, interventions can be compared to a critical threshold value which, in attempting to maximise the health benefits from available

resources, should represent the marginal opportunity cost of the resources available (i.e. the decision-makers' budget) (Lord 2004).

Critique

The use of QALYs and ICERs in decision-making has been the subject of recent debate, renewed due to the prominence of economic evaluation in health technology assessment processes such as those adopted by NICE. These debates are well rehearsed in the literature, in particular by Neumann (Neumann, 2005), and Birch and Gafni (Birch and Gafni, 2006a, Birch and Gafni, 2006b, Gafni and Birch, 2006, Birch and Gafni, 2007b, Birch and Gafni, 2007a) and are summarised here.

First, it is argued that the objectives of the decision-maker may not be aligned with those that underlie the calculation of the ICER in CEA. Birch and Gafni (2006a) highlight that whilst 'getting the biggest bang for the bucks spent' appears to reflect the needs of the decision-maker, using the ICER to maximise health gains from available resources is restricted to certain conditions which do not hold in the settings faced by healthcare decision-makers. Citing Doubilet, Birch and Gafni (2006a) argue that "there is no theoretical justification for asserting that the strategy with the lowest cost effectiveness ratio (i.e. the one that yields the greatest benefits per dollars spent) is the most desirable one". Specifically, the assumptions underlying the ICER approach require that interventions are divisible and exhibit constant returns to scale. This asserts that interventions can be purchased in incremental units that produce a constant level of output (i.e. benefit) irrespective of the number of units purchased, an assumption that is argued to be invalid in most (if not all) decision-making settings (Birch and Gafni,

2006b). Therefore, when the theoretical assumptions do not hold, there is no guarantee that using the ICER as a basis for decision-making will result in resources being used in ways to maximise health benefits.

Second, the notion of affordability is not considered within the calculation of the ICER but is adjunct to it. The ICER essentially represents the average incremental cost of additional health gains (Birch and Gafni, 2006b). The danger of this is that study authors will often state that a given treatment is 'cost-effective' because of a 'favourable' or low ICER value (one which falls below some critical threshold) (Donaldson et al., 2002). However, in reality, the ICER is defined by additional health gains that come at additional cost and if a more cost-effective treatment is also more costly, it cannot be simply substituted for a less cost effective treatment. Instead, given that the extra resources have to come at the expense of some other treatment or service, an opportunity cost results. Indeed, continuing to implement 'cost-effective' interventions without consideration of whether they can be afforded within the constraints of limited resources, may actually result in an inefficient allocation of resources and increasing expenditure (Sassi, 2003, Gafni and Birch, 2006, House of Commons Health Committee, 2008). Only through further examination, comparing the given treatment option with other uses of those additional resources can information be obtained about whether or not the treatment *should* be implemented. Failure to go to this next step, and make an explicit comparison, means that opportunity costs are not explicitly considered. In this regard it is not clear whether resources directed to an intervention that is deemed to be 'cost-effective' is the best of use of the available resources compared to other options that may have a claim on those resources.

Third, using QALYs in the calculation of the ICER restricts the benefits considered in economic evaluation to health gains only. However, it has been shown that maximising health output is not the single objective of decision-makers, that other objectives need to be taken into consideration, and other values such as distributional aspects (i.e. equity considerations) are important in the allocation of healthcare resources (Coast, 2004).

As suggested earlier, the ICER approach has been adopted by decision-making bodies in several countries and has reportedly resulted in the institutionalisation of economics as a basis for decision-making – with NICE assuming the auspicious title of being the most discussed example (Birch and Gafni, 2007b, Birch and Gafni, 2007a). However a cursory review of evidence pertaining to the 'success' of this approach in terms of supporting decision-making and managing scarcity reveals several issues.

First, the recommendations put forward by NICE only represent a small proportion of the health budget (as analysis has tended to be limited to drugs and medical devices, and particularly emerging, rather than existing technologies). Second, few of the technologies considered by NICE result in outright rejections to fund them. Lastly, the implementation of NICE guidance has been patchy (Buxton, 2006, Harris et al., 2001). Reasons for the lack of implementation of NICE guidance reflect those discussed in the critique above and include the argument that NICE recommendations often require investment, yet NICE makes no recommendations as to where the resources to fund the implementation of such recommendations are to come from (Barrett et al., 2006). This failure to explicitly recognise the opportunity costs of recommendations may therefore inadvertently lead to increases in expenditures and ultimately the cut back of resources

from healthcare activities for which there is no NICE guidance or no evidence on cost-effectiveness. Indeed, it has been reported that £575million of additional NHS funding was absorbed by NICE recommendations in the first few years of its existence (Birch and Gafni, 2007b). Whether the reallocation of resources to fund NICE recommendations has resulted in a more efficient healthcare service is far from clear.

Furthermore, other than at the national level such as that represented by NICE, the use of traditional economic evaluations generally have a poor track record of adoption in healthcare decision-making in practice. Research on the use of economic evaluations by decision-makers in practice has highlighted several barriers to the adoption of economic methods which include difficulties in accessing pertinent information, a lack of interpretation skills, the supply of information in a timely fashion, and the relevance of the information as it pertains to a given local decision-making context (Neumann, 2005, Hauck et al., 2003, Kernick, 2000, Von der Schulenburg, 2001). Additionally, the necessary complexity involved in conducting good quality economic evaluations for health technology assessment (e.g. the sophistication of modelling techniques) (Buxton, 2006, Buxton et al., 1997) can compound these issues if healthcare organisations are expected to use the results in their specific decision-making processes.

2.3.2 QALY league tables

Background

QALY league tables combine the results of multiple CEA/CUA analyses into a league table in order that potentially competing claims on resources can be compared in terms of their cost per QALY ratio. The basic notion is that new resources are allocated to

those services with low cost per QALY ratios i.e. those ranked highest in the table (Mooney, 1992).

Critique

As QALY league tables are simply a way of presenting the results of economic evaluations, they have the same associated disadvantages as the evaluations on which the table is based (as considered above). Specifically, there are problems associated with the appropriateness of QALYs, though it is beyond the remit of this thesis to discuss these[c]. More significantly, several issues have been highlighted with respect to the use and interpretation of league tables for priority setting decision-making. These arguments, summarised below, are well articulated by Gerard and Mooney (Gerard and Mooney, 1993, Gerard et al., 1999) and Neumann (Neumann et al., 2000).

First, the definitions of costs used in the league table are likely to differ between studies. Evaluations that consider those borne by society as well as the healthcare organisation may not be appropriate when using the results to prioritise healthcare from a narrower perspective. Second, restricting the measure of benefits to that of QALYs (health outcomes) does not allow decision-makers to take into account the broader objectives that may be important in decision-making (other than maximizing QALYs). Therefore, the results only account for the opportunity cost of QALYs foregone. Third, for the concept of marginal analysis to be fully realised using league tables, the results

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[c] A detailed critique of the QALY approach can be found in Donaldson, C., Atkinson, A., Bond, J. and Wright, K. (1998) 'Should QALYs be programme specific?' *Journal of Health Economics,* 7, pp. 239-57, Williams, A. (1985) 'Economics of coronary artery bypass grafting.' *British Medical Journal,* 291, pp. 326-29, Loomes, G. and McKenzie, L. (1989) 'The use of QALYs in health care decision making.' *Social Science & Medicine,* 28, pp. 299-308, Gerard, K. and Mooney, G. (1993) 'QALY league tables: handle with care', *Health Economics,* 2, pp. 59-64.

presented in the league table should have been derived by comparing the marginal costs and benefits of the proposed service change to the next best alternative use of resources. Different base comparators may produce a different configuration of results and the appropriate comparator will most likely differ between studies. However this is often not accounted for in the individual analyses. Fourth, for the league table to be of use for meaningful decision-making, the setting into which the results were being transferred would need to be contextually similar.

Moreover, even accepting the problems outlined above, league tables are of limited use to decision-makers. The results presented in the league table are the incremental cost per QALY gained which, assuming perfect divisibility of healthcare activities (i.e. that healthcare activity can be purchased in incremental units), represent an average 'rate of return' (in terms of health benefits) on the investment (cost). However, since healthcare activities are rarely purchased in divisible units, or, if they are, the incremental costs of purchasing additional units and the incremental benefits realised are not constant, the cost per QALY ratio does not equate to the actual price that can be paid to purchase individual QALYs from the activities listed in the league table. Indeed, given resource scarcity, pursuing the activity at the top of the table may, in an extreme case, consume the entire budget, which could perhaps be better spent by purchasing things lower down the table to maximise the total number of QALYs from the total investment, and thus represent better use of money and result in greater efficiency (Birch and Gafni, 2006b).

These concerns have led commentators to conclude that QALY league tables do not account for the dynamic processes of decision-making and different constraints will be

evident in different healthcare settings (Gerard et al., 1999, Neumann et al., 2000). In order for these tables to aid the priority setting process context specific data particular to the circumstances of individual decision-makers would be needed to populate the table. As a result there are few examples of the use of QALY league tables (Donaldson and Gerard, 2005). A notable exception to this is the attempt made by the US state of Oregon to use a league table to develop a prioritisation list in order to inform coverage decisions for the Medicaid programme (Ham, 1998). This example is renowned due to the failure of the approach, which was abandoned because the rankings it produced were considered to be clinically counterintuitive and allegedly violated the US Disability Act (Blumstein, 1997). The approach was also widely criticised because of flaws in the data collection and the methodological inadequacies of cost-effectiveness (much of which are covered in the critique above) (Hadorn and Holmes, 1997, Blumstein, 1997, Hauck et al., 2003, Baron and Ubel, 2001). In the end, a more subjective approach was adopted which drew on the results of public consultation, research evidence and the decision-makers own judgements to produce a list of services in priority order (Ham, 1997a).

2.3.3 Programme budgeting and marginal analysis (PBMA)

Background

Originating in the United States Department of Defence, programme budgeting (PB) was introduced by Robert McNamara in an attempt to reform military financial management at the federal level for which, prior to McNamara's appointment post 1961, there was no integration of military planning with resources requirements or budget (Novik, 1965). With explicit consideration of scarcity and opportunity costs, PB was advocated as a framework through which the pursuit of policy objectives could be considered in terms of their associated economic costs (resource use), and to provide the

basis for further analysis on the use of those resources in terms of effectiveness and efficiency (Novik, 1965). The latter for which, marginal analysis (MA) - conducted using methods of benefit cost analysis, public expenditure criteria and analysis, and government project analysis - was highlighted as a way of comparing programme cost data with the outputs of those programmes (as defined by the policy objectives) (Hinrichs and Taylor, 1969).

As applied to healthcare, the conceptual bases of PB and MA have remained largely unchanged. The first applications of PBMA in healthcare arose in the UK in the 1970s when used by the Department of Health and Social Security in England to set priorities for spending in the NHS (Pole, 1974, Gray and Steele, 1979). Following this, an illustration of programme budgeting within a Scottish area health board was amongst the first applications to support local (regional) level decision-making (Mooney, 1977). Since then, PBMA has reportedly been used at least 70 times in approximately 60 health organisations internationally, and continues to be used in about half of those (Mitton and Donaldson, 2001). The majority of this work was conducted in the UK, Australia, and Canada where it has been successfully used to allocate resources across entire healthcare institutions (i.e. at the macro level) (Mitton and Donaldson, 2001, Mitton et al., 2003c, Mitton et al., 2003b), as well as within a healthcare activity/disease area (i.e. at the micro level) (Astley and Wake-Dyster, 2001, Mitton et al., 2003a, Haas et al., 2001, Bohmer et al., 2001).

Although different authors have proposed various formats, the framework can basically be described by asking five questions pertaining to the use of resources:

1. What are the total resources available within a given service area or health organisation?
2. How are these resources currently spent?
3. What services are candidates for receiving more or new resources (and what are the costs and potential benefits of putting resources into such growth areas)?
4. Can any existing services be provided as effectively, but with fewer resources. so releasing resources to fund items on the growth list?
5. If some growth areas still cannot be funded, are there any services which should receive fewer resources, or even be stopped, because greater benefit per £ spent (or a greater fit with other defined criteria for £s spent) would be reached by funding the growth option as opposed to the existing service?

(Mitton and Donaldson, 2004)

Furthermore, Mitton and Donaldson (2004) have gone on to illustrate how these five questions can be pragmatically applied to healthcare decision-making through a series of seven stages. These stages are summarised below.

- Stage 1 – determine the aim and scope

The first stage is to determine the aim and scope of the priority setting activity. This will depend on the organisation, its objectives and existing budget areas. For example, the aim and scope of a PBMA process may be to determine optimum investment of resources across all programmes within a health authority, or, alternatively, to determine how best to spend resources within a specific hospital service, or, further still, to identify priorities for new technologies.

- Stage 2 – compile a programme budget

The next stage is to develop a programme budget. The purpose of the programme budget is to provide as detailed as possible a description of the deployment of current resources. This is a map of current activity and expenditure in those programme areas of interest and requires identifying the resources which are allocated to the individual programmes and quantifying the costs of providing the different services and the

associated activity. Some primary data collection may be required where there are data gaps. The programme budget offers a starting point from which reallocation and service re-design options can be considered.

- Stage 3 – form an advisory panel

Typically, a PBMA process relies upon an advisory panel which is charged with identifying, for a given budget planning cycle, areas of service growth, and, in order to fund the proposed growth, areas for resource release (Cohen, 1994). The composition will be dependent on the question under consideration and the scope of the exercise. The panel may be composed of a mix of clinical personnel and managers, and could include lay membership. In addition, data and financial personnel are key people to have on hand, to provide support for the decision-making process.

- Stage 4 – determine locally relevant decision-making criteria

Before identifying possible options for change or redesign, the basis upon which these service changes will be judged needs to be defined. In PBMA exercises it is common to identify a set of decision-making criteria on which such judgements will be based. These criteria may reflect the values of the given organisation, the healthcare system, or society at large. The criteria can be identified in various ways including a review of current organisational criteria and other literature. The criteria should be specified *a priori* and weighted, if possible, to reflect their relative importance.

- Stage 5 – identify and assess options for investments, disinvestment, and redesign

This involves identifying a prioritised list of service growth options, options for improving operational efficiency, and options for service reduction. This process should be supported using a standardised business case to put forward priority areas for potential service growth, resource release (where a service which is effective, but in only a small way, may be scaled back, at the margin, to release resources for a more

effective service development), or redesign in the form of operational efficiency gains (achieving the same outcomes at less cost). Each of the business cases should be explicitly rated against the pre-defined criteria, using available supporting evidence. The criteria ratings can then be combined with the criteria weights to give a weighted benefit score, using the following simple formula illustrated in Equation (1).

$$WBS = \sum CS_{1\ to\ i} * CW_{1\ to\ i} \qquad (1)$$

Where WBS is the weighted benefit score, CS is the criteria score for criterion 1 through to i, and CW is the criteria weight for criterion 1 through to i.

- Stage 6 – make recommendations for investment, disinvestment, and redesign

Each of the business cases should be evaluated in terms of both their marginal benefits (the weighted benefit score calculated above) and marginal costs. Using this information, the business cases can be ranked in order of most to least efficient (marginal benefit/marginal cost). In theory, following the notion of maximising benefits from scarce resources, this would dictate that resources should be moved from the least cost beneficial options to the most cost beneficial options. If a service disinvestment option produces less value than a service investment option *at the margin*, resources should be shifted accordingly. The process of comparing service investment and service disinvestment options should continue until it is decided that no more gain would be had by switching resources between options.

- Stage 7 – perform validity checks and make final decisions to inform budget planning process

Prior to reallocating resources, the proposed changes to services need to be validated. Consulting stakeholder groups (including clinical groups) will help to establish the clinical and organisational feasibility of implementing the selected options. Furthermore public acceptability for options can be ascertained through a public consultation

exercise. Any changes should be documented and the final recommendations with implementation plan and timescales produced by the advisory panel.

As described above, the framework involves assessing the costs and benefits of proposed changes in the delivery of healthcare and, on the basis of this information, discussing and potentially implementing such changes with the intent of improving benefit overall. In evaluating options for change, evidence on effectiveness and cost effectiveness (including economic evaluations) from the literature can be used (Cohen, 1994). These results can also be used in conjunction with other data, such as needs assessments, review of local and national policy, other consumer/public views, and other health professional views, to determine health services priorities (Ruta et al., 1996). If the healthcare budget is limited, opportunity cost is accounted for by recognising that any proposed changes requiring more resources can only be funded by taking resources from elsewhere. Referring back to the efficiency principles, resources can be obtained from elsewhere by being more technically efficient (e.g. treating the same conditions differently and achieving the same health outcome at less cost) or more allocatively efficient (e.g. treating entirely different conditions to achieve a greater health outcome at the same cost). Such changes are considered 'at the margin' by comparing the marginal benefits and marginal costs of alternative ways of allocating resources to healthcare activities. In the end, decision-makers are charged with deciding whether resource shifts will actually take place and can specifically address any trade-off with equity that may result with the potential increases in efficiency (Mitton et al., 2002b). As such, the PBMA approach provides a framework that can be used to operationalise the economic principles of opportunity cost and the margin whilst, at the

same time, considering other health system objectives (Mooney, 1992. Peacock et al.. 2006, Gibson et al., 2006a).

Critique

Irrespective of the fact that PBMA incorporates the basic economic principles, its application is not without challenges and a number of issues identified in the literature have yet to be resolved in full (Mitton et al., 2002b, Mitton and Donaldson, 2003c). In line with other research findings, Mitton et al. (Mitton and Donaldson, 2003c) reported that there were few problems with the conceptual basis of PBMA itself and that most problems commonly attributed to PBMA could be broadly described as associated with its operationalisation and implementation in the healthcare context.

In terms of operational problems, those widely cited include concerns about data and information, and the time requirements of PBMA. With respect to data, the main issues have been in obtaining accurate and relevant expenditure information (Miller et al., 1997, Astley and Wake-Dyster, 2001, Steele and Gray, 1980, Craig et al., 1995), and in obtaining both outcomes (benefit) data and information that are locally relevant (Ratcliffe et al., 1996, Madden et al., 1995). However, others have argued that PBMA is not an exercise on improving data accuracy but about providing a better basis, using the existing information, for making decisions (Scott et al., 1998). Furthermore it has been shown that much can be achieved when only crude data is available (Cohen, 1994. Ruta et al., 1996). and methods such as multi-attribute utility theory and decision analytic techniques can be used (Peacock et al., 2007. Peacock, 1998). Moreover. there is still a need to exercise value judgements with the decision-making process rather than

developing over reliance on waiting for perfect evidence (Mooney, 2002). With respect to time, there is concern that the time required to conduct a PBMA exercise is too long (Twaddle and Walker, 1995). This has implications for the amount of staff time and resources allocated to undertaking PBMA and concerns about whether this is the best use of such resources (Jan, 2001). However, Mooney and Wiseman (1999) argue that while a given PBMA exercise can be labour intensive, healthcare managers should have no more important activities than setting priorities and allocating resources. Indeed, decision-maker opinion has advocated that PBMA-like activity should take precedence over other managerial activities (Mitton and Donaldson, 2002).

In terms of implementation, concerns over PBMA relate to issues about engagement and organisational culture. With respect to engagement, some authors have noted difficulties in engaging both management and clinicians in PBMA (Ruta et al., 2005). Consequently, some recommend providing incentives for participation and aligning PBMA activity alongside or within current managerial responsibilities (Mitton et al., 2003c). On the other hand, there is also evidence that PBMA actually provides a forum for engagement (Mitton and Donaldson, 2003c) and results in greater team cohesion and an enhanced sense of ownership over the decision-making process (Astley and Wake-Dyster, 2001, Ruta et al., 2005, Bohmer et al., 2001). Additionally, there are issues around ease of community/public engagement in PBMA (Ruta et al., 1996). However, research on public involvement in priority setting suggests that the public may be best involved in developing the criteria or principles on which decision-making is based (Litva et al., 2002, Wiseman et al., 2003) – something which can be incorporated directly into a PBMA exercise. Finally, organisational culture appears to be key in determining the success or failure of PBMA. Instances where PBMA has failed have

reported reasons such as a lack of organisational stability, change in personnel and the loss of active "champions", and the absence of a culture receptive to change (Mitton and Donaldson, 2001, Mitton et al., 2002b). With reference to the latter, a further recurring challenge noted in the implementation of PBMA is that of overcoming the dominant approach to resource allocation which concentrates narrowly on the allocation of new (as opposed to existing) resources, in order to identify potential areas for the release and re-allocation of resources (McIver et al., 2000, Brambleby, 1995, Mitton et al., 2003b).

Though perhaps obvious, it is important to note that these issues are not necessarily confined to PBMA per se, nor its application to healthcare (Hinrichs and Taylor, 1969, Novik, 1965). PBMA therefore can be readily conducted in a 'technical sense' to account for the economic principles in the management of healthcare resources (Mitton and Donaldson, 2003c). Nonetheless, it is also recognised that PBMA needs to be better developed to meet the needs of decision-makers and the context of decision-making (Craig et al., 1995).

2.3.4 Needs assessment

Background

Health needs assessment is primarily concerned with defining, quantifying and estimating the size of health problems, health inequalities, and thus gaps in service provision as a way of identifying and measuring the health and healthcare 'need' evident in a population, and prioritising the allocation of healthcare resources accordingly (Stevens and Gillam, 1998, Stevens and Raftery, 1994). Definitions of need are however contested across disciplines and widely debated in the literature.

Bradshaw's taxonomy of need defines need in four categories: normative (as defined by a third party or expert), felt (as defined by individual experience), expressed (as defined through revealed demand), and comparative (as defined against a reference group) (Bradshaw, 1972). Approaches used in classic epidemiological needs assessment tend to focus on normative and comparative definitions of need. Normative approaches are essentially a descriptive analysis of the extent of a particular health problem in a particular population and observed difference in the provision of services and health status. The outcomes of such studies attempt to set a minimum standard of care (or set of services) to meet the unmet need identified in the population. Resources are then allocated to provide those services that will meet the unmet need. Comparative approaches compare the health status as measured by the impact of all diseases (incidence and prevalence), disease specific mortality and morbidity, or life expectancy, to identify the burden of disease or illness in a population (Murray and Lopez, 1996, World Bank, 1993). The common output of this approach is a ranking of conditions and related treatment options from most to least burdensome (Murray and Lopez, 1996). Resources are then prioritised to meet the most burdensome disease areas.

Critique

In the first of these approaches (normative needs assessment) need is portrayed as something that can be objectively defined and measured. However, on the contrary, need as a concept is value laden and definitions of need vary across individuals and over time. Different definitions of need therefore necessarily lead to different decisions about which needs are accorded priority over others (Culyer, 1995). Even assuming that need can be defined, and consequently unmet need can be identified, setting a minimum standard of care to meet that need may not necessarily be the best use of that resources.

Despite claims that common approaches to needs assessment take into account the cost effectiveness of interventions and are conducted within the accepted context of finite resources (Stevens and Gillam, 1998), the narrow focus of needs assessment on specific populations and disease groups means that it is not possible to know whether more need could have been met within the current resources by directing those resources to meet other needs (Birch and Chambers, 1993). Choosing to allocate resources on the basis of fulfilling some unmet need with no consideration of alternative uses of those resources ignores the concept of opportunity cost, and changing the pattern of resource use on the basis of meeting unmet need is unlikely to result in an efficient use of resources (Petrou, 1998).

The limitations discussed above also apply to the second of these approaches (comparative needs assessment). First, 'burden' is again value laden and the concept of burden differs across contexts. (Hanson, 1999, Mooney and Wiseman, 2000). Proponents of burden of disease approaches argue that the method offers a uniform measurement that can be applied to all regions (Murray and Lopez, 1996). However, this assumes that changes in health status are valued the same within all societies and cultures. Additionally, the approach assumes that health services and healthcare are primarily concerned with the reduction of disease. The comparative use of burden of disease estimates supposes that disease reduction is the only goal of health services globally, yet a society's desire to pursue other goals, or that goals may vary between countries, is not recognised in the literature (Mooney and Wiseman, 2000). Moreover, by allocating resources to health interventions purely on the basis of reducing disease burden as focussed on individual outcomes, will not address the underlying causes of ill health with which a society may be more concerned (Hanson, 1999).

Second, whilst those involved in such studies have argued that the methods are intended to provide some systematic steps to help assist decisions about resource allocation. they do not provide any guidance about how to do this (Segal and Chen, 2001). Identifying need in terms of burden of disease does not provide a clear decision rule about where resources should be directed. Whilst this approach implies that resources should be directed to the most prevalent diseases, it does not indicate how much should go where (e.g. whether resources should be directed to the most burdensome disease or divided pro-rata based on the relative distribution of the burden of disease) (Wiseman and Mooney, 1998). Furthermore, this approach does not always account for the costs and benefits associated with the actual interventions available in the disease areas. Prioritising resources to a more burdensome disease area will not result in an efficient use of resources if the interventions in this disease area are less effective in terms of benefits or costs than those in other disease areas (Mooney and Wiseman, 2000). Moreover, where cost-effectiveness information on interventions is used, establishing a league table of 'best buys' on the basis of impacts on burden of disease is subject to the same critique of cost-effectiveness analysis and QALY league tables presented elsewhere in this Chapter. Finally, this approach most obviously tends to ignore small scale problems, although intervening to treat several small problems, in terms of disease burden, may provide greater benefits for the resources spent (Donaldson and Farrar, 1993).

This is not to say that needs assessment is not important in priority setting. On the contrary, it is useful in identifying unmet need and gaps in service provision (Segal and Chen, 2001). However, a recurring challenge for health needs assessment is to be

efficient and cost effective (Stevens and Gillam, 1998). The underlying assumption within needs assessment implies that if a need exists and can be identified as such, it follows that it should be met. As such, the output from needs assessment usually results in recommendations that require more resources with no consideration of where such resources will come from or what benefits may be forgone. Needs assessment therefore ignores the notion of scarcity and that all needs (however defined) cannot be met and does not account for opportunity costs. Thus, prioritising resources on the basis of needs assessments alone will not result in an effective and efficient allocation of resources (Mitton and Donaldson, 2004).

Indeed, attempts to use comparative needs assessment methods to establish healthcare priorities for allocating resources have rarely succeeded. One of the most widely recognised examples is the Global Burden of Disease (GBD) study commissioned by the World Bank in the early 1990s. This was intended to improve government spending on health by establishing global healthcare priorities as part of a series of health policy measures to combat problems of cost escalation, the misallocation of public funds, and their inefficient and inequitable use in the healthcare sector (World Bank, 1993). The GBD study provided a quantitative assessment of disease, injury and health risks worldwide (Murray and Lopez, 1996), the results of which were taken up by the World Health Organisation (WHO) and combined with cost-effectiveness data on intervention choices to assist the allocation of resources toward areas of 'priority concern' (World Health Organization, 1996). However the approach received substantial criticism in line with that discussed above, and commentators argued the case that the WHO and the World Bank got it wrong, resulting in confusing resource allocation choices and leading

to an inefficient and inequitable use of scarce resources (Mooney and Wiseman, 2000. Hanson, 1999, Paalman et al., 1998).

2.3.5 Core services

Background

In principle the core services approach involves defining a bundle or 'basket' of core services or basic package of care to be publicly funded. All other services or packages of care are thereby excluded from public funding. Where this has been attempted, most notably in New Zealand and the Netherlands, decisions over what services should be included or excluded from the core or basic benefit package were based on defining a set of criteria against which services were prioritised (Hadorn and Holmes, 1997, Cumming, 1994, Hoedemaekers and Dekkers, 2003a, Hoedemaekers and Dekkers, 2003b). However, in practice these countries had difficulty prioritising healthcare services in this way (Mitton and Donaldson, 2003b). In each case, the committees established to oversee the process stopped short of defining the core or basic package and the concept was eventually rejected as too simplistic. Indeed, the Dutch committee stated that:

> *Decisions on the form of the basic benefits package have rarely sought to exclude entire groups of services, but have tended to restrict these services at the fringes by limiting the extent to which the service is covered. (Ham, 1997a)*

In practice few exclusions were realised and neither new Zealand nor the Netherlands managed to exclude interventions not deemed to be cost-effective (New, 1997). Instead, in each case, the criteria were used to restrict access to services, responsibility for which was devolved from the national level and disseminated through policy and clinical

guidance (Hadorn and Holmes, 1997). However, it is far from clear how these principles and guidelines are applied in practice and whether they result in improved resource allocation decisions.

Critique

There are several things to note about this approach to prioritisation. First, prioritising services on the basis of whether they meet a set of stated criteria requires information on how services fulfil such criteria. However, this type of data and evidence is often lacking and the method offers little guidance about how to use what information there is in making judgments against the criteria (Holm, 1998). Moreover, the approach implicitly requires consistency in the definition and interpretation of criteria. However, the criteria are not 'value' free and it has been argued that consensus on such values is implausible (Hoedemaekers and Oortwijn, 2003, Hoedemaekers et al., 1996). Different interpretations of the criteria can therefore lead to different benefit package decisions (Hoedemaekers and Dekkers, 2003a), which would seem to undermine the notion that there is a single way of defining one package. As a result, uncertainty about whether and how services meet the criteria/principles means that, in reality, most current services are included and the number of exclusions is relatively small (New, 1997).

Second, assuming that core services or a basic package can be defined, it is not clear how resources should then be allocated within the core or basic package. In the absence of any assessment of the costs and benefits of the services provided within the core or basic package, the allocation of the public funds in this way will not necessarily lead to greater efficiency and will most likely be based on historical patterns (Cumming, 1994).

Third, the inclusion and exclusion of entire services is too blunt an instrument. There will always be some individuals who would have benefited from excluded services. It follows that there may be services not included within the core or basic package that offer more benefit for the resources spent for some individuals than the benefit realised by other individuals from some core or basic services (Maynard and Bloor, 1998). Moreover, inclusions and exclusions of entire services threaten solidarity and are open to external challenge as they may lead to people seeking care outside of the system.

Finally, if one of the aims of a core or basic package services is to limit public spending on healthcare, then any core or basic package of services should be defined with respect to the current budget constraint. However, this approach fails to do so and this will likely lead to increases in healthcare expenditure (Cumming, 1994). Moreover, it has been shown that health expenditure will continue to rise with changing population demographics (leading to more people requiring access to the core or basic services) and the emergence of new technologies (which qualify for access into the core or basic package), unless the core or basic package is constantly reviewed and revised to remove services or restrict access to services (Chinitz and Israeli, 1997, Chinitz et al., 1998). In sum, this approach will not necessarily promote an efficient allocation of resources and it is difficult to see how it helps to manage scarce resources.

2.3.6 National policy guidelines

Background

In contrast to trying to define a basic benefit package of care by making decisions over what should be included or excluded from public funding, guidelines are primarily used to limit access to services by providing guidance on who should receive what and how. Guidelines are largely focussed on medical practices about what treatments are effective and to whom. They help to define the minimum standards by which care should be provided, outlining the most appropriate ways to provide care to those in most need. Though guidelines are first and foremost a tool to improve the quality of care, at a health policy level, guidelines are also seen as a way of standardising healthcare and thereby ensuring greater consistency in medical decisions and more efficient resource use (Woolf et al., 1999).

Sweden offers an established example of the use of policy guidelines for this purpose. Against a background of resource constraints and health system reforms aimed at cost containment (Calltorp, 1999), the Swedish Health Care Priorities Committee was established in 1992 to outline the roles of the healthcare system, to highlight the necessity of prioritisation for a sustainable healthcare system, and to investigate the prioritisation experiences of other countries with an explicit aim to promote prioritisation guidelines (Swedish Health Care Priorities Committee, 1997). The result of this was a set of ethical principles that were enshrined in Swedish Law in 1997 and provided an "ethical platform" to be used to guide all types of healthcare decisions (Calltorp, 1999, Carlsson, 2004) and to underpin the development of prioritisation guidelines (McKee and Figueras, 1996, Swedish Health Care Priorities Committee, 1997, Holmstrom, 1996). In order of importance, these principles were:

1. the principle of human dignity: all people are equal in dignity, regardless of personal characteristics and functions in society
2. the principle of need and solidarity: resources should be committed to the person or activity in most need of them
3. the principle of cost-efficiency: when choosing between different fields of activity or measures, a reasonable relation between cost and effect, measured in improved health and improved quality of life should be aimed for

The resulting guidelines involved collating evidence on need with the clinical and cost effectiveness of interventions, to arrive at a clinical consensus about the appropriateness of specific treatments (Ridderstolpe et al., 2003).

Critique

First, guidelines can improve the quality and consistency of care provided to patients (Woolf et al., 1999). Additionally, by focussing on the better delivery of services to those in most need, guidelines can promote distributive justice. Furthermore, it has been argued that through standardising care, guidelines can improve efficiency and, by calling attention to wasteful or ineffectual practices, they can potentially free up resources that can be used for other healthcare services (Shapiro et al., 1993).

However, there are also a number of problems associated with guidelines, their development and their implementation. First, in their development, guidelines tend to evolve from some evaluation of the evidence base, deliberation amongst experts, and clinical consensus about what is appropriate (Field and Lohr, 1992). However, there is often a lack of time, resources and skills devoted to the development of guidelines and fundamentally their recommendations may be wrong (Woolf et al., 1999).

Moreover, the values inherent in the production of guidelines are rarely explicitly stated. Instead such judgements over what is appropriate should be weighed against one another. However, even where these are made explicit, different interpretations are plausible and they will not necessarily be applied consistently in the same way. Indeed, it has been shown in practice that where healthcare professionals disagree with consensus guidelines, they are more likely to rely on their own experience or recommendations of colleagues that result in different patterns of healthcare provisions and perhaps expenditure (Ridderstolpe et al., 2003).

With respect to managing scarcity, because of their focus on improving medical practice, guidelines are not always concerned with cost and may promote the maximisation of health benefits regardless of any resource implications and cost constraints (Eddy, 1999, McGuire et al., 2000). They may therefore advocate the use of practices that are unaffordable. In turn, following them may result in escalating expenditure on services which may displace resources that are needed for other services which potentially may provide greater benefits to patients. Thus they ignore opportunity costs and may compromise efficiency.

The extent to which the Swedish approach to prioritisation has impacted on the allocation of resources and cost containment is unclear given the plethora of other, simultaneous, reforms that have taken place in the country (Ridderstolpe et al., 2003). Indeed, there was (and still is to some extent) uncertainty about how the principles are to be adopted in practice (Carlsson, 2004), and this has resulted in widespread variations in local implementation of the guidelines (Calltorp, 1999). Furthermore, analysis of

prioritisation decisions in Sweden has consistently shown that decisions are almost exclusively based on the principle of need with little additional consideration of cost efficiency (Bernfort, 2003, Carlsson, 2004). Indeed, it follows that the subordinacy of the cost-efficiency principle means that resources may not be allocated efficiently, and, as such there is no explicit recognition that resources are scarce and need to be managed accordingly.

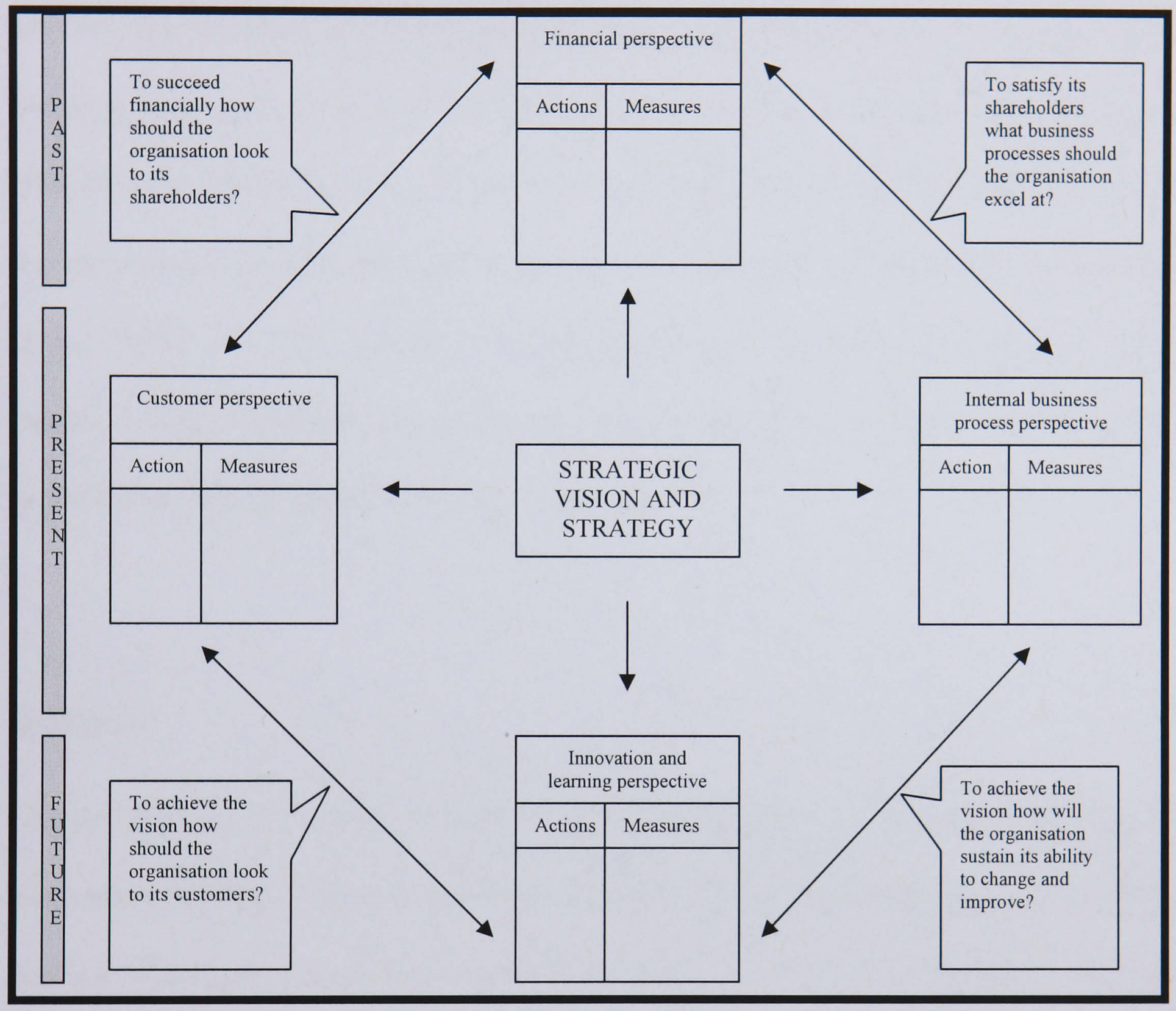
2.3.7 Balanced scorecard

Background

The balanced scorecard (BSC) is a performance management/measurement system that was developed within the private sector following concerns that financial measures alone were insufficient for managing an organisation. Performance management provides one means of inducing consistency in decision-making and action through which management strategy can be realised (Neely et al., 1994). The BSC methodology is a performance management system that specifically focuses on the strategic direction of the organisation (Radnor and Lovell, 2003). The approach, as conceived by Kaplan and Norton (1992b), attempts to clarify the organisation's strategic vision and translate this into tangible measures based on what has improved financial performance in the past (financial measures) and what (non-financial measures) will drive future financial performance. These measures are typically presented in an integrated framework within which their performance is assessed (usually from four perspectives) against achieving the organisation's vision. The framework, shown in Figure 2.1, illustrates the four perspectives within which the measures are incorporated (defined as: financial, internal process, customer, and innovation and learning) and the links between them which need

to 'balanced' alongside one another in achieving the organisation's vision (Kaplan and Norton, 1996).

Figure 2.1 The balanced scorecard framework



The integrated approach of the BSC framework is presented as an extension of conventional performance management systems in that it not only functions as a measurement system but also a control tool to 1) create an organisation-wide vision and coherence between organisational strategy, performance, and resource allocation; 2) exert control within the system based on outcomes and process, as well as financial

resources; 3) communicate and translate the vision throughout the organisation (Kaplan and Norton, 2001, Kaplan and Norton, 1992a).

With respect to healthcare, BSC has gained prominence in recent years primarily as a performance management tool (Zelman et al., 2003). Interpretations of the scorecard between contexts have however resulted in some modifications and varied applications (Ferrari et al., 2006, Zelman et al., 2003). Perspectives that have been added to the BSC include a focus on the patient and healthcare (quality, access, health outcomes) (Zelman et al., 2003). The BSC approach was introduced into the NHS in England in 2001 as part of system of performance management measures though evidence has shown that it has not been widely adopted (Radnor and Lovell, 2003).

Critique

Literature on the limitations of the BSC tends to focus on two broad areas. Debates have questioned the underlying assumptions of the BSC, and the application of the BSC in practice to the public sector and healthcare organisations more specifically.

With respect to the first of these points, Nørreklit (2000) argues that if the assumptions of the BSC are invalid, the framework may support performance indicators that are faulty and which result in dysfunctional organisational behaviour and sub-optimal performance. The assumptions referred to by Nørreklit are the casual relationships portrayed between the perspectives of the BSC, and the emphasis of the BSC as an integrated approach and a valid strategic management control tool (Nørreklit, 2000).

One of the main strengths propounded by advocates of the BSC is that the framework incorporates financial measures, as indicators of past performance and, additionally, non-financial measures that can be used to predict future financial performance (Kaplan and Norton, 1996). These are explicitly linked in a cause and effect relationship (as shown by the arrows in Figure 2.1). However, this cause and effect relationship is not as straightforward as illustrated in Figure 2.1. Several commentators have argued that the relationship is not causal but rather logical, that the perspectives are actually independent of one another, and that the financial implications of actions that are measured may be counter-intuitive in practice (Nørreklit, 2000, Laitinen, 2004). In terms of control, the BSC has been shown to be a hierarchical, top down control model, rather than interactive and rooted throughout the organisation (Nørreklit, 2000).

In practice, the failure rate of implementing the BSC is high (Neely and Bourne, 2000). Several reasons have been put forward to explain this, focussing specifically on the application to the BSC to healthcare organisations. These include: excessive data demands, the amount of resources required for implementation, and a failure to account for organisational context. First, the BSC requires a substantial amount of clinical, operational and financial data (Pink et al., 2001, Oliveira, 2001). In healthcare organisations, there is often a vast amount of data which is not necessarily integrated or routinely analysed for its impact on performance. Therefore obtaining relevant, accurate and timely data is difficult (Pink et al., 2001, Zelman et al., 2003). Moreover, the BSC is dependent on consistent and robust data reporting particularly for performance comparisons and benchmarking across organisations. However, data quality is of particular concern in health organisations (Pink et al., 2001). Second, there are time and resource (financial and human capital) implications in introducing the BSC. While the

BSC may provide meaningful audit trails that can be rationalised by managers, some argue that it introduces another layer of bureaucracy into the organisation (Pink et al.. 2001, Radnor and Lovell, 2003). Finally, the framework has been criticised for failing to acknowledge additional perspectives pertinent to healthcare organisations such as health related outcomes (in addition to financial performance) and the impact of the political context (Gao and Gurd, 2006). Despite claims that healthcare organisations can and do adapt the BSC (Zelman et al., 2003), in their review of the use of the BSC in healthcare settings Gao and Gurd (2006) argued that the balance in the scorecard was tilted toward financial rather than health outcomes.

It has been argued that, in using the BSC, the flow of financial and quality information to the public will result in more efficient healthcare markets and in higher quality health services (Forgione, 1997). Yet this is far from clear. There is little evidence on the effectiveness of the BSC in performance management (Hartley et al., Forthcoming 2008) and no evidence could be found to support the statement by Forgione (1997) that using the BSC would result in more efficient healthcare markets. Indeed, the counter-argument would suggest the contrary. The BSC approach does not formally acknowledge the resource scarce environment within which public sector organisations, and the health service in particular, operate (Donaldson et al., Forthcoming 2008). The actions and measures employed within the BSC framework are established independently of what may actually be achievable within a constrained resource. The realities of resource scarcity mean that choosing to allocate resources to achieve one action will limit the amount of resources that can be allocated to other actions which may have to be scaled back and, thus, may under-perform. However, the framework does not offer any insights into which actions should be given priority or where scarce

resources should be directed. There is no guidance on how to actually balance the different perspectives that constitute the framework, what the relative importance of each is, and therefore what trade-offs can be made between them. In reality, this leads to differences in the way that resources are allocated in healthcare organisations, despite the existence of the framework (Pink et al., 2001). Without an explicit comparison of the costs of achieving actions and impact (benefits) of them, the resulting allocation of resources may be inefficient.

2.4 The application of theory in practice

In practice, several approaches to managing scarcity were identified in the literature. As discussed above these could be broadly split into health economic and health service approaches. The emphasis of health service approaches primarily focused on identifying and addressing healthcare need in some capacity – either in terms of identifying unmet need through needs assessment, constructing a basic package of care by defining 'necessary care' through core services, or restricting access to healthcare to those in most need through the use of guidelines. However, it was argued that, in the absence of comparative information on benefits and the alternative use of resources, such approaches do not account for the economic principles of opportunity cost or the margin, an unsurprising finding given that these approaches were not developed within an economic paradigm. Nevertheless, evidence on the application of these approaches has also shown that they have often failed to address scarcity and could result in increasing healthcare expenditure.

Moreover, and perhaps more surprising, is that the economic approaches such as economic evaluation (specifically cost effectiveness analysis) and QALY league tables do not tend to explicitly incorporate the economic principles and thus aid the management of resource scarcity. Furthermore, additional challenges in implementation mean that economic evaluations and QALY league tables are often not routinely adopted in practice beyond the national level. This has led some to question the usefulness of health economic methods for priority setting at the level of the individual healthcare organisation (Coast, 2004, Prosser et al., 2000, Langley, 2000) and conclude that whilst economic evaluation is necessary for answering specific questions in the assessment of the relative value of one intervention over another, it is not sufficient, even when framed within QALY league tables, for making decisions over the allocation of scarce resources (McDonald, 2002, Coast, 2004, Martin et al., 2003).

This is not to say that approaches such as needs assessment and economic evaluation do not have a place in decision-making. On the contrary, they have specific functions in determining gaps in the provision of services and evaluating health technologies. However, alone they are not sufficient and are consequently not able to manage scarcity.

On the other hand, PBMA is an economic approach that adheres to the economic principles. PBMA guides decision-makers in making choices amongst competing claims on scarce resources and in practically critiquing existing healthcare activities vis-à-vis new and alternative healthcare activities thereby explicitly considering opportunity costs and the margin. However, despite little debate about its conceptual basis it has not

been widely adopted in healthcare decision-making. This is, in part, explained by the focus of previous PBMA research which has involved conducting one-off academic exercises instigated by academics and narrowly concerned with 'maximising benefit and minimising opportunity cost' (Mitton and Donaldson, 2001). More recently, research on PBMA has shifted to focus on examining the application of PBMA in practice. First, a broader set of decision-making criteria has been adopted to reflect the realities of real-world decision-making (Peacock, 1998, Wilson et al., 2006). Second, there is recognition of the need to ask decision-makers what they think and to do so with formal surveys and qualitative methods (Mitton and Donaldson, 2002, Patten et al., 2005). Third, extending an institutional economics perspective (Jan, 2001), the organisation is seen as an integral component to the technical application of the PBMA approach (Mitton and Donaldson, 2003a). Fourth, to study the application of PBMA and its iterative development, it is necessary to adopt an alternative research paradigm to conduct the research in a participatory way from within the organisation (Patten et al., 2006). Proponents of PBMA are therefore keen to highlight its evolution from the simplistic application of economic principles for one-off decision-making, to merely acting as a vehicle for incorporating these principles alongside the pragmatic necessities of everyday decision-making and to support this decision-making on an on-going basis (Mitton et al., 2002a, Donaldson et al., Forthcoming 2008).

As such, PBMA offers an approach to managing scarcity that incorporates economic principles and, in contrast to the majority of the other approaches, provides a 'process' as opposed to a 'tool' for managing scarcity, and hence provides a suitable vehicle for applying economic principles in practice. Moreover, in studying the application of economic principles in practice it is not only important to focus on the ability of PBMA

to adhere to the economic principles, but also to understand the decision-making context within which PBMA is used, how it is adapted, and how it should be refined. something that can only really be undertaken using qualitative research working within the given context.

2.5 Chapter Summary

This chapter outlined the economic theory as applied to the management and allocation of scarce resources as a basis for critiquing approaches used in practice to managing scarcity identified from the literature. Specifically, the concept of resource scarcity was discussed in relation to the economic principles of opportunity cost and the margin, and the implications of these principles for the allocation of healthcare resources.

Several approaches to managing scarcity in practice were identified in the literature. Broadly these were split into health economic and health service approaches. Each of these was critiqued with respect to how they adhered to the economic principles, and thus their potential for managing scarce resources.

Economics was therefore shown to provide a theoretic set of principles for managing the allocation of scarce resources but their application was not widespread. Reasons for this were explained, in part, by the failure of common decision-making approaches (including the economic approaches) to explicitly capture these economics principles, and, perhaps more so, the failure of economic approaches to be pragmatically applicable in 'real' decision-making contexts. One approach, PBMA, was highlighted as adhering to the economic principles. Furthermore, PBMA offered a process for managing

scarcity and thus offered a potential vehicle through which economic principles could be utilised in the management of scarce healthcare resources. However, in studying the application of economic principles in practice it was also noted that it was necessary to adopt an alternative research paradigm and utilise qualitative research to be able to understand the decision-making context within which PBMA is used, how it is adapted, and how it should be refined.

The following chapter sets out the methodology and methods employed in this research to study the use and application of economic principles in practice, through the vehicle of PBMA, in the context of local level decision-making in the NHS in England.

Chapter 3 Theory, methodology and methods

3.1 Chapter overview

The previous chapter (Chapter 2) presented an overview of economic theory as applied to the management and allocation of scarce resources and used this as the basis for critiquing the approaches used in practice to manage scarcity identified from the literature. In particular, one approach, PBMA, was highlighted as adhering to the economic principles. Furthermore, PBMA offered a process for managing scarcity and thus offered a potential vehicle through which economic principles could be utilised in the management of scarce healthcare resources. However, despite numerous applications, PBMA has not been routinely adopted in healthcare decision-making. One reason put forward for this was the way in which PBMA exercises were undertaken. Often such projects were research exercises instigated by academics conducting a one-off PBMA exercise that involved the straightforward application of economic principles. More recently, however, it has been recognised that any approach has to fit alongside the pragmatic necessities of everyday decision-making in the 'real-world' and support decision-making on an on-going basis. As such, it is argued here that it is important to be able to understand the decision-making context within which PBMA is used, how it is adapted, and how it should be refined, something that can only really be undertaken using qualitative research working within the given context.

This chapter presents the methodology and methods adopted in this research to do just this. In order to answer the fundamental research questions posed in Chapter 1, Section 1.5, and reiterated in this chapter, a qualitative approach was chosen on the basis that it:

is broadly concerned with how the social world is interpreted, understood, and experienced; involves methods of data collection that are flexible and sensitive to the social context; and utilises methods of data analysis, explanation and argument building that require developing an understanding of the complexity, detail and context of the data (Mason, 2002). The research described in this chapter utilises a participatory action research (PAR) approach that provides a suitable framework for conducting and presenting the research as it enables the iterative development and implementation, and refinement of PBMA through the research process. The PAR consisted of three phases of research to study PBMA prior to, during, and after its introduction into a commissioning organisation. At each phase, qualitative methods of data collection and analysis were used to undertake the research, each of which is described, justified (in the context of this research) and discussed.

3.2 Research objectives

As outlined in the introduction, Section 1.5, the objectives of this research are:

- To identify approaches to managing scarcity in the health services research, management, economics, and ethics literature.
- To examine PCT decision-makers' views on managing scarcity and commissioning – specifically how commissioning is understood in principle, and how this translates in practice.
- To develop, implement, and observe the application of PBMA as a framework for managing scarcity to fit with the organisational structure of PCTs and account for the barriers and facilitators of such implementation.
- To evaluate how the PBMA framework is interpreted and reconstructed by users within the PCT and whether the use of the framework results in improved process and management of scarce resources.

The first of these research objectives was addressed in Chapter 2. This chapter focuses on the latter three objectives, presenting justification for the research paradigm adopted and the methodology and methods used for conducting the research.

3.3 Research design

Given that the above objectives are concerned with studying PBMA prior to, during, and post its introduction into a commissioning organisation, PAR was adopted as a framework around which the research could be conducted. PAR offered a way of situating the research as well as a useful approach to its description and presentation.

3.3.1 Participatory action research (PAR)

Broadly, action research can be defined as follows:

> *Action research is a period of inquiry, which describes, interprets and explains social situations while executing a change intervention aimed at improvement and involvement. It is problem focussed, context specific, and future orientated. Action research is a group activity with an explicit critical value basis and is founded upon a partnership between action researchers and participants, all of whom are involved in the change process. The participatory process is educative and empowering, involving a dynamic approach in which problem identification, planning, action, and evaluation are interlinked. Knowledge may be advanced through reflection and research, and qualitative and quantitative research methods may be employed to collect data. Different types of knowledge may be produced by action research, including practical and prepositional. Theory may be generated and refined, and its general application explored through the cycles of the action research process. (Waterman et al., 2001, pg.11)*

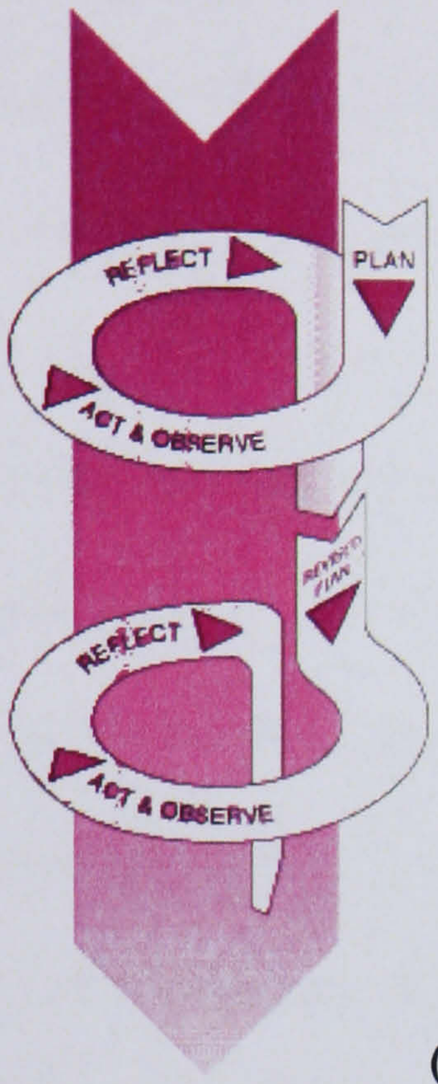
In recent years, PAR has increasingly become established as a framework for researching intervention, development and change within groups, communities, or organisations. Specifically, it has been extensively used in education and nursing

research (Waterman et al., 2001). In these fields, PAR has been used as a form of social research that focuses on the study of actions and practices in order to change and improve them. In doing so, the purpose of PAR is to research those actions, change/modify/broaden them, and re-research them. As such, PAR seeks to merge knowledge generation with action and change (Greenwood and Levin, 1998), concentrating on 'knowledge for action' rather than simply 'knowledge for understanding' (Cornwall and Jewkes, 1995). A distinctive feature of PAR is the participatory nature of the research. PAR tends to be conducted by and for those who are the end-users of the research. Consequently, PAR is inherently context specific – addressing actions identified by those involved in the research and applying results to directly address those actions. As Checkland (1997) notes: "this [action research] involves researchers giving up the pure 'observer' role and entering the problem situation to research *with* participants rather than simply *on* them. The aim is to find the changing structures of meaning which lead individuals and organizations to act in the ways they do in turbulent environments" (Checkland, 1997, pg.117).

PAR is often intended to be a continuous research tool comprised of "self reflective cycles of planning a change, acting and observing the process and consequence of the change, and reflecting on these processes and consequences" (Kemmis and McTaggart, 2003 p381). This cyclical process is illustrated in Figure 3.1 below. In each cycle, participants identify important problems and issues, initiate research, change actions, examine the implications of those changes, and generate the agenda for the next cycle. Furthermore, continuous reflection on the knowledge generated from researching and changing actions, is fed into future cycles. As such, PAR is reflexive, flexible and

iterative (Cornwall and Jewkes, 1995), which means that study outcomes can be difficult to predict from the outset.

Figure 3.1 The action research spiral.



(Reproduced from Kemmis and McTaggart (2003, pg.382)

3.3.2 Using PAR to research the use of health economics in decision-making

In the context of healthcare, PAR has tended to be used to improve practice through studying and changing skills, education, service delivery, or management processes (Waterman et al., 2001). In relation to health economics, there is only one example of PAR conducted by Patten et al. (2006). In their research, Patten et al. (2006), used PAR to study and improve the decision-making process by introducing PBMA within a Canadian Health Region. The PAR conducted by Patten et al. was led by a qualitative researcher, health economists, and senior managers and clinicians within the Region. Qualitative methods were used to: gain an understanding of the organisation and its current priority setting practices; recognise the complexity of PBMA from the decision-maker's perspective; and allow researchers to work closely with decision-makers to

identify the research agenda, generate necessary knowledge to change priority setting processes, and implement those changes (Patten et al., 2006).

The research reported in this thesis utilises PAR in a similar way to the study above. In this case, the research was conducted by a researcher trained in health economics and qualitative research, collaborating closely with decision-makers involved in the research. PAR was used as a framework to enable the iterative development, implementation, and refinement of economics in decision-making, though the vehicle of PBMA. Specifically, PAR was adopted over one cycle to study PBMA before, during and after its introduction into the commissioning organisation, in the three phases illustrated in Figure 3.1 – Phase 1: planning the change, Phase II: acting and observing the change, and Phase III: reflecting on the change. Each of these phases corresponds directly to the research objectives 2-4 outlined in 3.2. Qualitative methods of data collection and analysis were used in each of these phases as described briefly below and, in more detail, in Sections 3.5 and 3.6

In Phase I, the current organisational context, processes, and practices into which PBMA (as the focus of change) was being introduced was examined using in-depth one-to-one interviews with decision-makers to identify how commissioning was undertaken in theory and practice, and to gather their reflections on current commissioning processes. An analysis of themes was used to provide thick description (Geertz. 1973) of the current commissioning context and the constraints inherent in the current commissioning process.

In Phase II, PBMA was introduced into a commissioning organisation and developed iteratively and interactively with decision-makers, stakeholders, and researchers. Ethnographic approaches were used to observe the implementation of PBMA in terms of the application and adaptation of PBMA to the organisational context, organisational dynamics, participation and motivation, and potential challenges to implementation. An analysis of themes from the observational data was used to examine common concepts encountered during the implementation of PBMA.

In Phase III, focus groups with the decision-makers and stakeholders involved in the research were used to gather reflections on the PBMA process. An analysis of themes of the focus group transcripts was used to identify challenges in the implementation of the PBMA process.

Obviously these different methods generate different data. Further details on the justification for the methods of data generation and analysis used in this research are presented later in the Chapter (Sections, 3.5 and 3.6). Before discussing the methods in depth, it is important to consider the underlying methodological perspective taken in this research within which these methods are employed to generate data, and how that data is analysed and interpreted.

3.4 Methodology

Literature on methodological research perspectives is extensive and it is not the intention to reproduce it here, but, rather, to present a reasoned summary of the methodological approach taken in this thesis and why it is appropriate in this research.

According to social science, the social world can be viewed in multiple ways, through a variety of different lenses. The viewpoint one adopts is dependent upon one's beliefs about broad theories about the social world such as the nature of society, the nature of knowledge, and the nature of explanation and meaning (or ontology, epistemology, and hermeneutics, respectively). Without rehearsing them in full, these arguments are largely centred on notions of 'reality' and 'truth' (referred to only as reality herein) (Denzin and Lincoln, 2003, Mason, 2002, Hammersley and Atkinson, 1995, Guba and Lincoln, 1994, Hughes, 1990).

In simplistic terms, reality can be represented on a continuum, the two extremes of which are commonly labelled as realism or positivist, and relativism or interpretivist. Using these definitions, positivist research is primarily associated with the natural science model of research. In this model of research, reality is positioned as 'out there', independent of the people concerned and people's perceptions of it. As such, reality is fixed, unchanging, and accessible. It is assumed that objective knowledge is possible, that reality can disclose causal relationships, and is deductive – produced through hypothesis testing. On the other hand, interpretivist research is associated with the humanistic model of social research (Bryman, 2004). In this model, reality is positioned as being constructed, interpreted, and reconstructed by people in the social world who communicate. As such reality is not fixed, but is constantly shifting and changing, as it is shaped by, and shapes, the context and the interpretations people make within it. It is assumed that knowledge is subjective and is therefore inductive – generated from observations of reality. At the very extreme of this model it is argued that there are multiple versions of reality to which an ultimate or singular 'meaning' cannot be

ascribed. At a lesser extreme, however, it is argued that a version of reality (one of many) can be accessed by analysing 'meaning' in talk, text, and observations, as symbols that represent a reality.

These extremes are also commonly associated with quantitative (positivist) and qualitative (interpretivist) research paradigms. However, few researchers and little research are situated at the very extremes (Silverman, 2001) and, in practice much research is often defined more broadly. Indeed, in relation to qualitative research. Silverman (2001) suggests that the methods used by qualitative research exemplify a "common belief that they can provide a 'deeper' understanding of social phenomena than would be obtained from purely quantitative research" (Silverman, 2001, pg.32). Similarly, Mason (2002) proposes that qualitative research is concerned with how the social world is interpreted, understood, and experienced; involves methods of data collection that are flexible and sensitive to the social context; and utilises methods of data analysis, explanation and argument building that require developing an understanding of the complexity, detail and context of the data. These definitions underlie the broadly interpretavist stance adopted in this research to explore and observe the use of health economics in the natural setting of decision-making.

The arguments about methodological perspectives and the theories of the social world presented above are well established in the social sciences but are relatively new to health economics. Indeed, Small and Mannion (2005) state that as a discipline, health economics has remained "insulated from important theoretical and philosophical debates" (Small and Mannion, 2005 p221) that have dominated the other social sciences

and that, in turn, health economics has failed to embrace alternative methodological paradigms in its research. Elsewhere, they argue that "health economics as presently constituted is failing in both its descriptive powers and prescriptive possibilities" and that alternative theoretical approaches (with an emphasis on postmodernism) offer the "possibility of expanding the scope of health economics and grounding it more appropriately in the everyday experience of those engaging with health systems" (Mannion and Small, 1999 p255). They conclude by suggesting that health economists might want to consider, amongst other things, "becoming more eclectic and flexible in their choice of methodology by developing an increased awareness of the value of behavioural and qualitative methods; and developing a more open dialogue with heterodox economics and other health related social sciences" (Mannion and Small, 1999 p270).

Since Mannion and Small's early paper, there have been a number of attempts to use qualitative research in health economics. However, as Coast et al. (2004) argue, such attempts were limited as much of the research had rarely "gone beyond content analysis [...] to feedback into quantitative models, with little qualitative analysis" (Coast et al., 2004 p171) and few studies had used the methodology and methods in empirical research to answer specific research questions. In conclusion, Coast et al. surmised that there appeared to be a general acceptance of the use of qualitative data within health economics but not qualitative methods or methodologies. However, more recently, there have been a number of notable exceptions including the use of qualitative research to refine quantitative methods in health economics (Coast and Horrocks, 2007, Borghi et al., 2007) and explore and understand the behaviour of responders towards health economics methods (Baker and Robinson, 2004, Smith. 2007). Additionally, qualitative

research has been used to understand the organisational context within which health economic methods are advocated and understand the challenges and barriers to the adoption of health economics within these healthcare organisations. Such research includes: the use of interviews and observation to study the use of economic evaluations in NICE (Williams and Bryan, 2007); as already mentioned above, the use of PAR to study the implementation and acceptance of PBMA in decision-making (Patten et al., 2006); and the use of participant observation and documentary analysis to analyse the use of health economic methods in the decision-making processes in a health authority (McDonald, 2002).

In this thesis, a qualitative research or interpretivist perspective was adopted on the basis that it provided the most suitable methodology and methods for studying the research objectives. This research builds on that undertaken by McDonald in the UK (described in Chapter 1) which focussed solely on economic evaluation, and utilises and develops the research design and methods employed by Patten et al. in studying the use of PBMA in Canada, to study the use of health economics and health economic principles in the management of scarce resources more broadly, using PBMA as a vehicle. Hence the claim that the research is unique, not only in its application to the UK context, but also internationally.

3.5 Methods of data collection

Methods of data collection used within the three phases of the PAR included interviews, observation, and focus groups. Each of these methods is described below in terms of the detail of the method and its application to the research.

3.5.1 Interviews

Interviews involve the elicitation of verbal responses to verbal questions from a respondent or set of respondents. Qualitative interviews tend to consist of a series of open ended questions, as opposed to closed ended, which allow respondents to report on their own experiences and express what they 'think' or 'feel'. This yields rich, deep data that come in the form of extracts of natural language – so called in-depth interviews (Darlington and Scott, 2002, Britten, 2000, Britten et al., 2000). Interviews are therefore useful in exploring a range of perspectives around a particular event or phenomenon.

As such, interviews were used in this research in the first phase of the PAR to examine the current commissioning context. In-depth interviews using open ended questions were conducted in 2004 within PCTs in one SHA (as well as within the SHA) in the North of England. The interviews were used to explore: participants' perceptions of commissioning; how commissioning was understood (i.e. how commissioning *ought* to be undertaken); how this translated into practice (i.e. how commissioning *was* undertaken); and their reflections on this (the strengths and weaknesses of commissioning).

The selection of participants balanced both theoretical and practical considerations. In theory, Strauss and Corbin (1998) suggest that data collection and analysis should be conducted simultaneously to the point where no new findings are revealed in the analysis (data saturation). Practically, however, it is often difficult to obtain interview participants and Darlington and Scott note that "in reality, the ability to pick and choose

respondents on theoretical grounds is a luxury we have rarely encountered" (Darlington and Scott, 2002 p54). As such, participants were selected using a mixture of practical sampling strategies including snowball sampling (identifying participants from other participants), quota sampling (selecting participants on the basis of their experience or characteristics), and judgemental sampling (selecting the most appropriate participants for the topic at hand) to identify participants on the basis of their job title which was matched across each of primary care organisations.

Thirty one people were approached to take part in the research to provide a range of different views, at different levels of the organisation. Where they declined, their explanation was noted and they were asked to suggest another potential participant. In total, data was collected from 22 participants (14 males and eight females). The roles of participants included executive level management (e.g. members of the senior executive team and the PCT Board, such as chief executive) (n=6), non-executive management (e.g. lay-members of the PCT Board such as PCT Board chair) (n=5), and director level management (e.g. a high level manager who may or may not be on the PCT Board such as director of public health) (n=11). For those participants at director level, their role could be further divided into three areas of speciality; public health/medical (n=5), commissioning (n=4), and finance (n=2). Information on interview participants is given in Table 3.1.

Table 3.1 Interview participants

ID	ROLE	FUNCTION	GENDER
1	Executive		Female
5	Executive		Male
6	Director	Public Health	Female
7	Director	Commissioning	Male
8	Non-executive		Female
9	Executive		Female
10	Director	Public Health	Male
11	Director	Commissioning	Male
12	Non-executive		Male
16	Non-executive		Female
17	Executive		Male
18	Director	Public Health	Male
19	Director	Finance	Male
20	Director	Commissioning	Female
22	Executive		Male
24	Director	Finance	Male
25	Non-executive		Male
26	Executive		Male
27	Non-executive		Male
29	Director	Public Health	Male
30	Director	Commissioning	Female
31	Director	Public Health	Female

In order to build trust prior to the interview, and conform with ethics, the interview participants were sent an information sheet (Appendix A) detailing the research, the interview process, and circumstances under which the interview could be terminated.

Additionally, participants were asked to fill in a pre-interview questionnaire (Appendix B). Before commencing the interview, participants were asked to re-read the information sheet and sign a consent form (Appendix C) giving permission for the interview to be recorded and transcribed. To establish rapport with participants, the interviews were conducted by a single interviewer (the researcher and author of this thesis) who was both knowledgeable and interested in the interview topic. The pre-interview questionnaire was used as an ice breaker and also served as a prompt (Britten, 2000).

Participants were offered a choice of interview either face-to-face at their chosen location, or via telephone. All chose a face-to-face interview which was conducted at the interviewees' places of work. An interview schedule was used to guide the interview and served to prompt the researcher to probe the participant. The schedule consisted of semi-structured questions which were revised throughout the course of conducting the interviews to incorporate new concepts as they emerged from the interviews. The ordering of questions varied and they were never delivered verbatim. As such, the schedule was used to guide the interview in an informal but purposeful way (Mason, 2002). Burgess (1984) refers to such encounters as "conversations with a purpose". The interview schedule in its most recent form is reproduced in Appendix D. The interviews took approximately 1½ hours to complete (ranging from 44 minutes to 1 hour and 46 minutes) and were audio-recorded (to avoid the recognised problems associated with note taking (Britten, 2000)) and transcribed.

3.5.2 Observation

Although interviews give access to information about participants' actions and behaviours, it does not follow that what participants say they do (in an interview setting) reflects what they do (in the 'real' setting) (Silverman, 2001). Observation methods go some way to addressing this. Observational methods in the social sciences involve the systematic detailed observation of people's behaviour and talk (Pope and Mays, 2000). Such observation is considered to be 'naturalistic' given that it is concerned with the study of social life in real, naturally occurring settings (often referred to as the field).

In this research observational methods were used, not to verify or cross reference data obtained through the interview setting, but in the second phase of the PAR to describe and observe the introduction and implementation of PBMA. Specifically, observation was used as it enabled the recording of organisational and individual behaviour, routines, and interactional practices, first-hand. The observation was conducted within one healthcare organisation (herein referred to as the Commissioning Consortium[d]), selected on the basis that it fulfilled the criteria put forward by Burgess (1984) for identifying field sites for observation, the criteria being as follows:

- simplicity (selecting the site that offers the opportunity to move from the simple to more complex situations and sub-sites)
- accessibility (selecting a site that permits access and entry)
- unobtrusiveness (a site that permits the researcher to be low profile)
- permissibleness (a site in which the researcher is permissible and the researcher has free entry)
- participation (a site in which the researcher is able to participate in the ongoing activities). (Burgess, 1984 p61)

[d] The detials on this entity have been deliberately limited to avoid explicit identification of the organisation. Further information on the organisational context is given, as necessary, in Chapter 5.

Specifically, the site was selected through a series of meetings held with local PCT managers to explore and identify potential research collaborations between health economics and the local health economy, the need for research and support in decision-making and commissioning, and the strategic direction for the local health economy. As well as fulfilling the criteria outlined by Burgess above, the size of the Commissioning Consortium (which brought together 3 of the 6 PCTs in the region) enabled the research to be conducted across three PCTs and meant that the organisation had the capacity, power, and influence to support the research.

Given that access to the research field was closed, i.e. controlled by a gatekeeper (Walsh, 1998), and the observation was conducted overtly, access to the field had to be negotiated and the necessary ethical and organisational permissions obtained. The research was subject to assessment by the Local Research Ethics Committee (reference SLREC1127) and the NHS Research and Development lead for the region. Permission for the observation and access to the field was also separately negotiated with the CE of the Commissioning Consortium through a series of formal and informal meetings which involved the researcher and the research supervisors. Additionally, a plan of research was submitted to the CE for approval and amended accordingly (Appendix E). Access was constantly re-negotiated throughout the duration of the research in line with changes affecting the organisational structure and personnel. An honorary contract was issued, allowing physical access to the organisation and once in the organisation, an identity card, desk, phone, computer, and a login username and password were supplied.

Once in the field, observation involved participating in the daily life of those being observed and watching, observing, and talking to them. The level of participation adopted in this research was predominantly that of the participant-as-observer. described by (Gold, 1958) as researching the field whilst participating fully in it. As such, from the period September 2004 to April 2005, the author of this thesis (AB) (hereafter referred to as the researcher), worked for 3 days a week within the Commissioning Consortium under the direction of the Director of Public Health who was responsible for implementing PBMA. During this period the researcher worked closely with the Director and commissioners to introduce PBMA into the organisation and observe its introduction. This "'insider' role" (Pope and Mays, 2000, pg.34) was further enhanced through day-to-day interactions with those working in the organisation. Though somewhat facilitated by senior management approval and 'buy-in' to the research, this had to be negotiated separately. Attempts to build trust and rapport with participants were created in several ways including: 1) taking on work outside the research remit; 2) dressing in a similar fashion; 3) following similar working patterns – i.e. working late; 4) socialising with participants in work – i.e. over coffee breaks; and 5) socialising with participants after work – i.e. helping establish and partaking in the organisation's football team.

The 'insider' role was balanced against the 'outsider' role to avoid "going native" (Pope and Mays, 2000, pg.34). For the two days a week that the researcher was not working within the Commissioning Consortium, the researcher continued in their role as a health economist employed at Newcastle University. As such, the researcher had access to both NHS and University IT systems (allowing use of University files, email etc.) within the organisation which enabled 'outside' contact. Furthermore, by limiting the

number of days worked in the organisation, the researcher was able to maintain their 'outsider' role, spending time out of the organisation to reflect critically on experiences and status (Brewer, 2000).

Data collection was restricted to observations of the implementation and application of PBMA in the Commissioning Consortium in order to limit the amount of data gathered to what could readily be analysed (Silverman, 2001). Particular focus was given to trying to identify how PBMA was adopted within the organisation, the barriers and facilitators to adoption and how PBMA was interpreted and reconstructed by participants. Observations were structured around specific events and meetings that took place during the course of the PBMA exercise. In most cases these were observed directly. However, in some cases the researcher was denied access to some meetings such as one-to-one progress meetings between the Director of Public Health and the CE, or meetings on sensitive issues (as deemed by the CE). In these cases, selected informants present were interviewed informally following the meetings to gather their observations of the proceedings. The period of observation covered the full duration of the PBMA exercise which was considered to be sufficiently broad and long enough to observe and experience a wide range of routines, activities, people, and behaviours (Brewer, 2000).

Observations were recorded in a research diary on a daily basis whilst in the setting under observation. The diary was used to document observations and interactions in the day-to-day setting, in meetings (both formal and informal), and one-on-one personal communication between the researcher and other participants. 'Substantive field notes'

(Brewer, 2000), indicated the time, date, location, and identities of people involved alongside what was seen and heard (Pope and Mays, 2000). Where plausible, notes were entered directly into the diary or transferred as soon as possible and dated appropriately. This helped to ensure that the notes were comprehensive and allow for points of clarification to be addressed at the next visit to the field (Lofland and Lofland. 1995). The diary was read periodically and amended to make notes more legible as appropriate. Additionally, 'analytic field notes' (Brewer, 2000) were used to record initial thoughts relating to the interpretation of the observational notes and were highlighted as such to distinguish them from the substantive field notes. The diary (as an object rather than the content of it) was visible within the organisation and colleagues within the organisation were aware of its significance. Finally, the researcher had regular debriefing meetings with the research supervisors to record feelings and emotions and reflect upon developing relationships in the field, problems, emotional costs and other things affecting the research (Brewer, 2000). These sessions were recorded verbatim and were used to form part of the data to provide the basis of reflexivity used to contextualise the research.

The end of the research was denoted by the production of an internal report and a regional workshop. Withdrawal from the field involved both physical and emotional disengagement and was done in stages (Brewer, 2000, Mason, 2002). Physical disengagement took place over several months. Following the initial piece of research documented here, the researcher continued to work within the Commissioning Consortium for one day a week, providing health economics input into a number of small scale (micro) PBMA exercises. Emotional disengagement was eased by the fact that many of those involved in the research left the organisation as a result of various

national policy and structural changes that followed, though contact has been maintained with many of these people (including the CE and Director of Public Health). Additionally, due to the fact that this research formed the thesis presented here, there is an ongoing emotional and practical association with the organisation.

3.5.3 Focus groups

Focus groups are a method of interviewing that involves more than one interviewee - essentially a group interview. However, unlike a group interview, focus groups explicitly use group interaction to generate research data (Kitzinger, 2000). Furthermore, the focus group is often distinguished from other group interviews by its emphasis on a specific theme or topic that is explored in depth (Bryman, 2004). In other words, a focus group is a focussed group interview. Group interaction within focus groups encourages participants to raise issues with which they are directly concerned and that are important to them, and permits them to raise their own questions and question the views of others or revise or modify their own views (Kitzinger, 2000). Group interaction also allows the interviewer to explore a broad range of views and examine the ways in which participants collectively make sense of the issues discussed and jointly construct the meaning of such issues (Basch, 1987, Bryman, 2004). As such, focus groups may facilitate the expression of ideas and experiences that may otherwise have been left underdeveloped in a conventional interview (Bryman, 2004). It is for these reasons that Kitzinger (2000) argues that focus groups are useful for studying work place cultures. Indeed, the empowerment of participants within a focus group setting makes them particularly useful in action research where the research participants are an active part of the research and analysis (Baker and Hinton, 1999).

Given the above, focus groups were used in the third phase of the PAR to gather reflections on the implementation of PBMA and suggestions for refinement of the process. Given the specific nature of the focus group, the restricted numbers of people directly involved in this research, and that there is no consensus on the required number of focus groups (Bryman, 2004), only two focus groups were held. These consisted of the directors and managers directly involved in the observation exercise of the implementation of PBMA. It is argued that such natural/pre-existing groups result in more naturalistic discussions that approximate naturally occurring data (such as that collected by participant observation) ((Kitzinger, 1994, Kitzinger, 2000). However, some commentators suggest that natural groups can often operate with taken-for granted assumptions that will not be brought to the fore (Morgan, 1998) and pre-existing styles of interaction or status that may have a negative impact on the group interaction (Bryman, 2004). As such, the different groups involved in the research (the managers or Heads of Service, and the Directors) were separated to limit group dynamics (such as hierarchy and power) affecting the data (Kitzinger, 2000). The numbers involved in each of the focus groups were kept small as the participants were very involved with the topic and were likely to have a lot to say (Morgan, 1998). In total six managers (out of a possible nine) and five Directors (in addition to the CE and three PEC Chairs) attended the focus groups.

The focus group for the Directors was held opportunistically following another meeting conducted as part of the research, whereas the focus group for the Heads of Service was convened specifically. Prior to running the focus groups, participants were given information on the purpose of the research and specific issues that would be discussed (Darlington and Scott, 2002). In both cases, this was communicated via email and

reiterated verbally at the beginning of the focus group. Additionally, participants were given the opportunity to opt out if they felt unwilling or unable to take part. Each of the focus groups lasted for around one hour and was run by the researcher who acted as the moderator to facilitate and guide the interview (Kitzinger, 2000). Given that the aim of the focus group is to elicit the perspectives of those being studied (i.e. the participants) it follows that the role of the moderator should not be intrusive nor should the process be too structured. As such, participants were encouraged to sit in a circle to establish the right atmosphere (Kitzinger, 2000) and the researcher used a topic guide which grouped topics into areas of discussion to be raised during the course of the focus group and facilitated the discussion (Appendix F). This allowed the researcher to address similar research questions across all focus groups, whilst at the same time allowing participants to raise their own issues.

In terms of moderation, Bryman (2004) points out that there is no singularly correct way in which focus groups should be moderated or what style of questioning should be used and focus groups are affected by various factors such as the nature of the research topic and the levels of interest and knowledge among participants in the research. The role adopted by the researcher was two-fold – to encourage and allow flowing discussion to allow specific issues to come to the fore, and intervening to bring such issues into the discussion when other participants did not do so. In this way, some control over the interview was relinquished to the participants to allow the discussion to be as broad as possible, whilst the researcher intervened only when the discussion veered off on a tangent, to urge discussion, or take on the role of 'devil's-advocate' to provoke debate (Bryman, 2004).

Each of the focus groups was electronically recorded with participants' consent in order to keep track of what people were saying as well as who was saying it and how they were saying it. Following the recorded discussion, participants were invited to discuss anything privately and also given the opportunity to contact the researcher in person or via email.

3.5.4 Limits on methods of data collection

The methods described above have their associated advantages and disadvantages. In this research, each of the methods was chosen on the basis that they were most appropriate for researching the particular issues in question. Nevertheless there are some limitations associated with these methods that should be highlighted.

First, with respect to interviewing (and, by implication, focus groups) these methods rely on verbal responses, i.e. what is said, to infer information about respondents' behaviour, meanings, attitudes and feelings (Bryman, 2004). These are not directly observed in the interview setting but are the data revealed through questioning (Brewer, 2000). As such, interviews assume that respondents' descriptions are a reliable reflection of their behaviour, meanings etc, and that the questions asked in the interview reveal descriptions of the subject intended. Brewer (2000) notes that the second of these assumptions can be limited by careful questionnaire design and piloting. The first, however, is compounded through interaction with the interviewer. For example, the socio-demographics of the interviewer and respondent can influence the interaction between them and thus the responses given. The effect of the interviewer on interviewees' responses can be moderated by making interviews less structured (more

conversational), and having a single interviewer conduct all interviews (thereby making the effect constant). However, the interviewer effect can never be entirely eliminated. Interviews are often therefore referred to as 'situated understandings' (Brewer, 2000) that are specific to the interactional encounter. As such, the data generated through interviews are bound to the interviewer and bound to the context within which they were conducted, and need to be interpreted in this respect.

Second, with respect to observation, this is most obviously limited by constraints on the role adopted by the observer and the physical location of the observation. In other words, only a small part of the subject being researched can be observed and recorded. It is therefore important to indicate why some events were observed and others not, so as to avoid focussing only on the exceptional or abnormal (Brewer, 2000). Moreover, what is observed and recorded is only ever the partial, personal view of the observer. As with interviews, this should be accounted for when analysing and interpreting the data gathered from such observations.

3.6 Methods of data analysis and interpretation

In qualitative research data tend to: come in the form of extracts of natural language that are personal to the researcher (who collected them), be voluminous in scale and yet generalisable to a limited extent (Pope et al., 2000). Nevertheless, this does not mean that analysis of such data should not be or, indeed, cannot be, systematic and rigorous (Huberman and Miles, 1988, Brewer, 2000). The method of data analysis adopted depends upon what status is attached to the data and how the data will be interpreted which is dependent upon the analytical position of the researcher (Silverman, 2001). As

Brewer (2000) notes, interpretation is therefore specific to the researcher and is dependent upon the researcher's insight into the data. Furthermore, interpretation is not independent of analysis and the two are done side-by-side.

In this research, the transcribed data from the interviews and focus groups, and the field notes and research diary from the observation, formed the formal data for analysis. Data collected through interviews, observation, and focus groups were analysed and interpreted by themes which were used to provide a detailed descriptive analysis of what was happening in the data – a rich description of what people said or did. The methods of data transcription and data analysis and interpretation are presented in more detail below.

3.6.1 Transcribing data

In order to analyse audio recorded data, such as that collected through interviews and focus groups for example, it is usual to transcribe it from its original oral form into text. In this research, interview data were transcribed verbatim, the most common kind of transcription (Rapley, 2007). The researcher transcribed one interview to become familiar with the data and decide upon the extent of notation required for subsequent analysis. All other interviews were outsourced and transcribed by two qualified transcribers with whom the researcher communicated. In each case, the transcription was conducted following a number of useful conventions outlined by Rapley (2007). First, transcripts were named appropriately so they could be easily identified and retrieved. The transcript title included information on the date of the original recording and interviewee ID number. Second, those involved in the recording were identified by their title. Third, line numbers were used to enable quick reference to a line of text.

Fourth, notation was used to represent what was happening in the text such as pauses. overlaps in speech, and interruptions etc (Appendix G).

Despite being often referred to as a verbatim transcript, it is important to note that transcripts are not a comprehensive record of what went on during the recording. As Rapley (2007) points out, transcripts are simply translations. In other words, they are partial and selective textual representations of the interaction studied. Furthermore, it does not follow that a verbatim transcript will accurately capture or express what has been recorded. Indeed as Poland (2001) states, the process of transcription itself is "inherently problematic" (Poland, 2001 p630) with regard to the quality of transcriptions. In particular, Poland (2001) highlights several challenges to transcription quality including transcriber problems with sentence structure (knowing where conversational sentences begin and end), the use of quotation marks (identifying where individuals are mimicking or paraphrasing others), omissions (leaving out words), and mistaking words or phrases for others. In order to limit the potential for these problems, good quality recording equipment was used and was tested prior to each interview, trained and experienced transcribers were contracted to undertake the majority of the transcription, and the work of the transcriber was reviewed for quality by reading the transcription alongside the audio recording. On this last point, this not only offered a useful exercise for checking the quality of the transcription but also provided a way of getting to know the data. Mistakes in the transcripts were corrected. However, some transcription details were omitted in the presentation of the analysis in the interests of readability.

The focus group data were transcribed by the researcher. Given that the process of transcription is very time consuming, Bryman (2004) advises that in the case of focus groups it may not be necessary to transcribe the entire recording, suggesting that sections of the interview may be more relevant than others. Only relevant sections of the focus groups were therefore transcribed. As above, transcription was conducted verbatim, adopting the applicable conventions already discussed.

3.6.2 Analysis of themes

There are many approaches to qualitative thematic analysis – two common examples are grounded theory and analytical induction (Bryman, 2004). However, some authors contend that though much lip-service is paid to these techniques, they are rarely adhered to in their entirety (Bryman, 2004, Bryman and Burgess, 1994, Brewer, 2000). As such, these authors advocate that analysis should instead be described in terms of a series of 'basic operations' that are based on the shared principles of analytic induction and grounded theory. Such basic operations include coding, the use of memos, and constant comparison.

Data coding, sometimes referred to as indexing, is a way of organising the data into manageable units, identifying specific categories or themes in the data (Pope et al., 2000). The process of coding involves establishing patterns in the data to order and explain the data, and examining regularities and variations in the data between the categories and themes used to code them. This is described by Fetterman (1998) as a process of searching for patterns of thought and action repeated in various situations and

with various players, comparing, contrasting, and sorting categories and minutiae until a discernable pattern of thought or behaviour becomes identifiable.

In this research, the transcribed data from the interviews and focus groups and the diary data from the observation were read and re-read several times by the researcher. In each case, the data were openly coded by the researcher to categorise significant remarks or observations in the data (Bryman, 2004). This involved reviewing and asking questions of the text, such as: what the item of data represents, what is happening, what people are doing, what people are saying they are doing, and what kind of event is going on? (Lofland and Lofland, 1995). A constant comparative approach, comparing data categories to ensure all data relevant to each category were identified and examined, was used to identify and label common categories emerging from the interview accounts (Pope et al., 2000). At this stage, joint data sessions were also held with one of the supervisors (MJM) to examine the analysis and supportive evidence and confirm (or revise) codes. Following this, the data were further explored and the codes were refined by collating or merging codes, where categories were similar or, developing sub-codes, where categories required more detail (Gibbs, 2002). This was done by referring back to the text and linking codes to contexts, to consequences, to patterns of interaction, and to causes (Bryman, 2004). In particular close attention was paid to the identification of potentially deviant or negative cases (Becker, 1998). These were used to explain the exceptions – those things that did not seem to fit the analysis – which helped to support or modify categories. Finally, these codes were further interrogated to identify common threads that tie all other categories together into a story (Gibbs, 2002).

The coding was facilitated using memos and computer assisted qualitative data analysis. Memos, notes written by the researcher for the researcher, served as reminders about what was meant by specific terms and phrases used, helped to cement ideas and keep track of those ideas, and provided the building blocks for reflection (Bryman, 2004). Computerised software, specifically NVivo (NVivo, 2002) was used to aid the coding of the interview and focus group data, allowing passages of data to be coded, collated, and retrieved speedily and efficiently, whilst also logging and tracing ideas and memos. As Fetterman (1998) points out, computers do not replace the researcher and still require the eyes and ears of the researcher to determine and interpret categories within coding. Due to the nature of the observational field notes, these were coded manually to avoid entering all the field notes electronically.

The themes that emerged from the coding of the data were used to build an account or description of what participants said. This was done by examining the codes and re-reading the data to identify good examples or extracts of the descriptions of the behaviour and the talk that the codes represent (Brewer, 2000). In the case of the interview data, the categories developed through the coding were used to build a 'thick description' (Geertz, 1973) of what was happening in the data (i.e. the current commissioning context). Thick description uses detailed accounts of the social setting to inform the understanding of, and create general statements about, the phenomenon being researched. Fetterman calls this the 'emic perspective' (the study of phenomena from the insider's perspective), and states that this is "instrumental to understanding and accurately describing situations and behaviours" (Fetterman, 1998, pg.20). The descriptive results were presented in several forums including to a group of original participants in order to verify the findings, and to supervisors, the project steering

group, and peer academics to enhance reflexivity (see below). The results from this analysis are presented in Chapter 4. In the case of the observational and focus group data, less thick description was used and instead attention was paid to specific events or key people to identify good examples of the practices observed and discussed. The results from these analyses are presented in Chapter 6.

3.7 Quality and rigour in qualitative research

As discussed in the methodology (Section 3.4.), the findings generated from the analysis of qualitative research represent one of a range of possible interpretations of reality. As such the outputs from qualitative research cannot be judged with respect to whether they are an accurate representation of an absolute reality. Indeed, it is often this aspect of qualitative research that generates the most criticism. Common critiques of qualitative research argue that qualitative research is no more than anecdotal, personal opinion and heavily subject to researcher bias; because the research is so personal, another researcher may therefore come to different conclusions (Mays and Pope, 1995). As such, these criticisms question the reliability, validity and generalisability of the research and outputs.

Despite the criticisms attributed to qualitative research, it does not mean that qualitative research cannot be rigorous or that qualitative researchers should not strive for rigour in both the process and the product. However, there is much debate about how to assess rigour in qualitative research (Mays and Pope, 2000, Silverman, 2001). Some authors advocate the use of identical criteria to those used in positivist quantitative research, namely reliability, validity, and generalisability (Mason, 2002, Lecompte and Goetz,

1982). Others argue that qualitative research is different and cannot be judged using the same criteria used in quantitative research, substituting them instead with interpretivist alternatives (Guba and Lincoln, 1994). However, Hammersley (1992) offers a pragmatic approach to assessing the quality of qualitative research that sits somewhat between the two positions identified above. Hammersley (1992) draws on the quantitative criteria of validity and reliability as well as interpretivist criteria to specify a set of general criteria. These criteria cover two broad areas: truth (or validity) and relevance. For Hammersley, truth or validity is concerned with assessing the plausibility and credibility of the claims made in the research and involves taking into account the amounts and kinds of evidence used to support such claims (Hammersley, 1992). In terms of relevance, Hammersley argues that the research should be judged with respect to the importance of the topic within its field or the contribution that it makes to the literature in that field, a criterion he refers to as 'value relevant' (Hammersley, 1992).

In this research, validity was addressed in several ways through respondent validation, the explicit exposition of the methods of data collection and analysis, attention to negative cases, and reflexivity. Each of these is discussed in more detail below.

3.7.1 Respondent validation

As it suggests, respondent validation involves discussing the interpretations produced by the researcher with research participants in order to compare the accounts and examine the level of correspondence between the two, and thus improve the credibility of the research (Mays and Pope, 1995). In this research, participants were asked to judge the adequacy of the interpretations on two separate occasions. First, interim

results from the interview data were presented to a group of original participants and to a research steering group that was made up of a mix of NHS professionals and academics whose role was to provide advice and alternative perspectives on the research. Second, the interpretations from the observational and focus group data were presented in an internal report on which a selection of original participants were asked to comment, and at a regional workshop where attendees were encouraged to offer alternative interpretations. Participants' views were used to confirm or revise the analytical themes.

3.7.2 Exposition of the methods of data collection and analysis

Different research methods can impact on the research in a number ways. Different research methods vary in terms of the influence that they may have on participants and thus participant behaviour, the type of data that can be collected, and the extent of the interpretations that can be made. As such, it is important that methods and data are kept in context, since interpretations are tied to the methods used (Brewer, 2000). Brewer asserts therefore that a clear account of the methods should do a number of things: establish the integrity of the research and author by outlining the grounds upon which claims within the data are being justified and outlining the strengths and weaknesses of the research design; establish the authority of the data by outlining the coding system used to interpret the data, and by providing sufficient data extracts in the text to allow readers to evaluate the inferences drawn from them, and the interpretations made of them; and show the complexity of the data, avoiding the suggestion that there is a simple fit between the social world being studied and the representation of it (Brewer, 2000). In addition, the methods should be sufficiently explained to permit replication (Stiles, 1999). In this research, the methods of both data collection and analysis,

including the limitations of those, are presented in detail. Furthermore, in the results chapters that follow, data in the form of extracts from interviews, field notes, and focus groups are presented to evidence the claims made.

3.7.3 Attention to negative cases

'Negative' or 'deviant' cases which may appear to be weak or contradict the arguments presented, are analysed and discussed. Brewer (1984) argues that attention to negative cases shows how deeply the material has been thought about and can often serve to exemplify and support positive cases. In this research, negative cases were sought and used to refine the emerging themes and arguments. Furthermore, negative cases were used to illustrate the multiple and contradictory descriptions from participants and highlight the context of such descriptions. Analysis of negative cases is specifically undertaken in Chapter 4.

3.7.4 Reflexivity

In qualitative research, the data are created in and through interaction between the researcher and participants (whether in an interview, observational work, or focus group setting). Reflexivity involves reflection by the researcher on the effect and implications of their methods, their values and biases in the analysis and production of the research, as well as acknowledgement of the researcher's cultural, political, and social context (Bryman, 2004). As such, reflexivity may assist in improving the credibility and thereby the quality of the research (Seale, 1999). Reflexivity requires a critical attitude towards data and recognition of the influence on the research of such factors as the location of the setting, the sensitivity of the topic, power relations in the field and the nature of the

social interaction between the researchers and the researched, all of which influence how data are generated, interpreted and conveyed in writing up the results (Brewer. 2000).

Reflexivity is perhaps especially important in this research where questions may be raised as to the influence of the background and role of the researcher who is both involved in implementing PBMA and studying its implementation. As such, these issues were reflected on in the analysis and interpretation of the data using joint data sessions with supervisors to examine the arguments put forward. Emphasis on reflexivity is drawn out in Chapters 5 and 6, as well as the discussion in Chapter 7.

3.7.5 Relevance

Finally, turning to Hammersley's (1992) criterion on relevance, research is deemed to be relevant when it adds to the knowledge base or increases confidence in the existing knowledge base, an important dimension of which is the extent to which the findings can be generalised (Mays and Pope, 2000). Qualitative research is concerned with depth as opposed to breadth (Brewer, 2000), and although generalisations should not be exaggerated from one or two fields of study, it does not mean that generalisations cannot be made. In qualitative research, such generalisations involve theoretical inferences from data to develop concepts, connections and empirical applications of the data to a wider population (i.e. making inferences about the data that can be applied beyond the data on which it is based) (Dey, 1993). Theoretical inferences drawn from this research were presented in seminars to health service colleagues from different localities in order to gauge the plausibility of such generalisations. Feedback from these

presentations was incorporated in further iterations of the analysis and in the presentation of the results (Chapters 4-6). Furthermore, the methods and results are presented in depth in order to enable the reader to judge whether the findings apply in similar settings.

3.8 Chapter summary

This chapter presented a detailed account of the methodology and methods adopted in this research to study the application of PBMA. Participatory Action Research (PAR) was used as a framework to conduct the research in three phases, studying PBMA prior to, during, and after its introduction into a commissioning organisation. In-depth one-to-one interviews with decision-makers were used to examine the current organisational context, processes, and practices into which PBMA was being introduced. Ethnographic approaches were used to observe the implementation of PBMA in terms of the application and adaptation of PBMA to the organisational context, organisational dynamics, participation and motivation, and potential challenges to implementation. Focus groups were used to gather reflections and suggestions for refinement of the process from the decision-makers and stakeholders involved in the research. This chapter outlined each of these methods and their associated limitations. The data generated through these methods was subject to an analysis of themes to identify and examine common concepts that emerged. The final sections of this chapter discussed the issue of achieving quality in qualitative research and the attempts to introduce rigour into this research, including the use of respondent validation, clarity and detail in the explanation of methods, and the importance of reflexivity.

The following chapters detail the results from these methods. Chapter 4 presents the results from the interviews undertaken in the first phase of the PAR, providing a thick description of the current commissioning context and the constraints inherent in the commissioning process from the analysis of themes. Chapter 5 presents the results from the first part of the second phase of the PAR, describing the implementation of the action (PBMA) as it was applied within a commissioning organisation. Chapter 6 reports the results from the second part of the second phase of PAR, drawing on the analysis of themes of the observation of the implementation of PBMA to build an account of how PBMA was applied, how it was received, and how it was adapted. In addition, this chapter also presents the results from the focus groups undertaken in the third phase of the PAR, again, using an analysis of themes to reflect on the challenges of implementing PBMA and suggestions for refinement of the process.

Chapter 4 The context prior to the implementation of PBMA: results of the analysis of interviews in PAR Phase I

4.1 Chapter overview

The previous chapter outlined the methodology and methods employed within this thesis to explore commissioning and to study the application of PBMA as a potential vehicle for introducing economic principles into the commissioning process. Specifically, Participatory Action Research (PAR) was presented as a framework for conducting the research. This was divided into three phases, studying PBMA prior to, during, and after its introduction into a commissioning organisation. This chapter presents the results from the first phase of the PAR exercise – planning a change. In this phase, the current organisational context, processes, and practices into which PBMA (as the focus of change) was being introduced was examined. Interviews were conducted with 22 PCT and SHA decision-makers in northern England to identify how commissioning was understood in principle by decision-makers (i.e. how commissioning *ought* to be undertaken), how this translated into practice (i.e. how commissioning *was* undertaken), and finally, decision-makers' reflections on this. An analysis of themes was used to empirically analyse the interview data and identify broad themes and sub-themes. These themes were used to build a thick description of the current commissioning context and the constraints inherent in the current commissioning process. The results from the analysis of themes were also used to construct a schematic model of commissioning, illustrating how the themes relate to, and impact on, each other.

4.2 Thematic analysis results

Codes were developed from the interview data to label common concepts as they emerged. In total thirty five codes were identified from which six broad themes were generated. These were: commissioning concepts, principles, structures, methods, outcomes, and constraints. Figure 4.1 illustrates these codes and the themes and sub themes generated from them. The six themes were used to construct a thick description of PCT commissioning as perceived by the decision-makers interviewed. The thick description is presented under the following headings using anonymised verbatim quotes by way of illustration: 1) strategy – the *concepts* and *principles* that guide commissioning; 2) process – the *structures* utilised in commissioning and *methods* that drive commissioning in practice; and 3) performance – the *outcomes* of and *constraints* in the commissioning process.

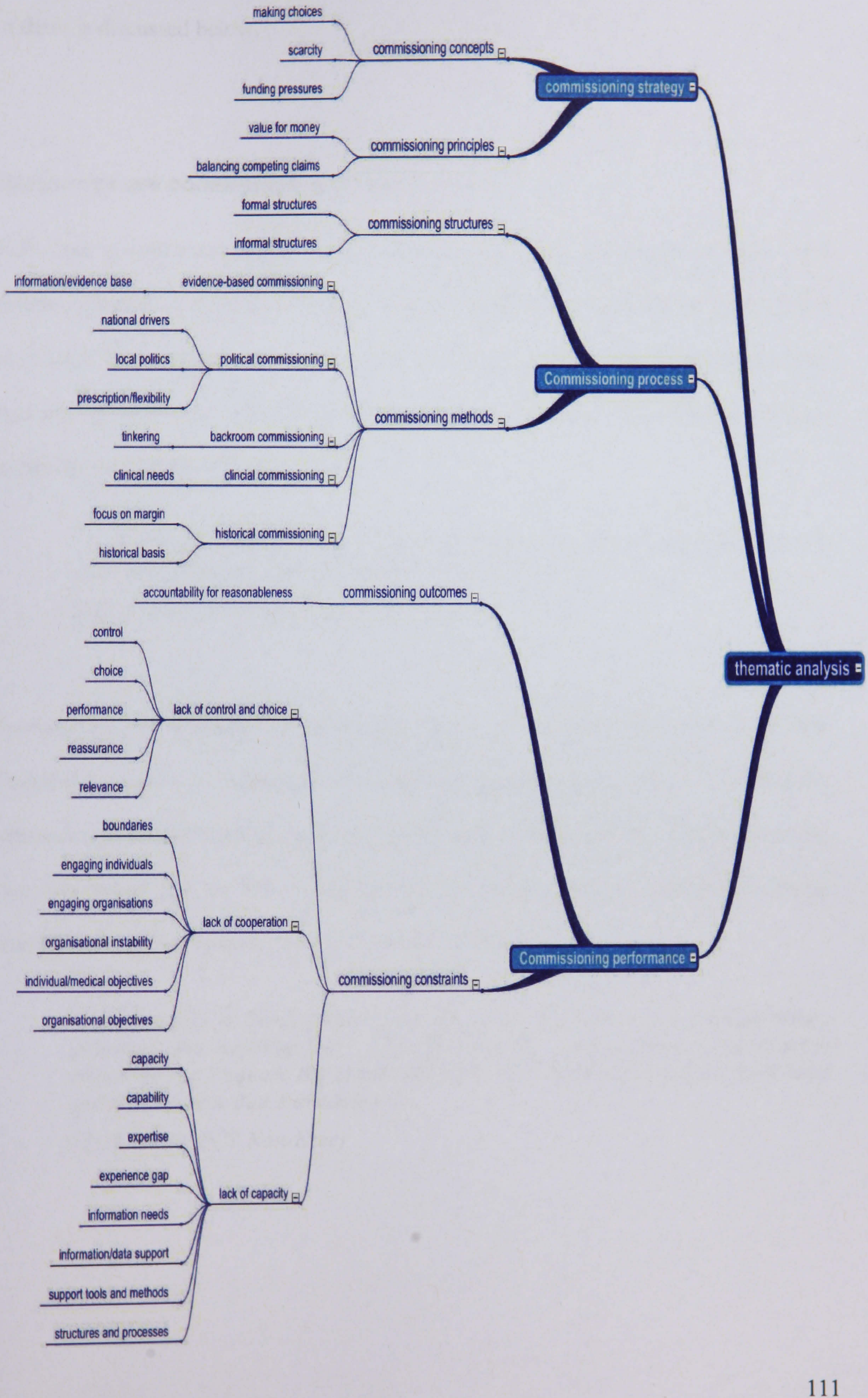
4.3 Commissioning strategy: concepts and principles

In discussing their understanding of commissioning, participants revealed no single definition of commissioning. This was highlighted by the interchangeable use of terminology (commissioning, priority setting and resource allocation) both within and across interview accounts. Despite this, a set of common concepts and principles emerged that can be used to illustrate how participants understood commissioning.

4.3.1 Commissioning concepts

The existence and need for commissioning was described using three concepts that were identified from the interview accounts. These were that: resources are constrained and

Figure 4.1 Thematic analysis results



scarce; resources are competing; and choices over resource use have to be made. Each of these is discussed below.

Resources are constrained and scarce

Reference to resources tended to focus narrowly on financial resources, rather than human resources or time for example. First, financial resources tended to be described in relation to the budget received by the PCT from the Department of Health and was typically presented as being finite and, as such, constrained. The following extract explicitly demonstrates this last point:

> *"... the health budget is very clearly defined and comes as a cash limited sum with some elements of growth added on an annual basis."*
>
> *(ID9, Female, PCT Exec).*

Furthermore, as illustrated in the extract below, participants went on to describe financial resources as inadequate ("there just there isn't enough money") to meet the demands, needs and wants (generically, claims) placed upon the PCT ("to do everything that we would like to do"). Financial resources are therefore portrayed as being insufficient and thus scarce ("we can't square the circle").

> *"... ultimately it comes back to the fact that there just isn't enough money around to do everything that we would like to do. ... we're almost in a situation where we can't square the circle and there isn't a balance between local need and the resource that's available."*
>
> *(ID25, Male, PCT Non-Exec)*

Resources are competing

Second, as shown in the following extracts, participants often described scarce resources as having to be 'battled for' or 'fought over' ("you're [...] left with [...] small amounts of money to fight over ..."), therefore depicting claims on scarce resources (here "demands") as 'competing' for scarce resources.

> *"...by the time you've dealt with some of the main blocks of planning for the next year you're very often left with relatively small amounts of money to fight over ..."*
>
> *(ID29, Male, SHA Director)*

> *"... you'll never satisfy all the demands because there'll be competing demands."*
>
> *(ID16, Female, PCT Non-Exec)*

Choices have to be made over resource use

Third, participants described how decisions over resource use had to be made ("we decide how we're going to spend the PCTs money") and that this involved making choices about *who* ("who we're going to give it to") and *what* ("and what for") to allocate resources to. Implicitly, this also involves decisions about what or who not to allocate resources to and, additionally, *how*, and *when* to allocate resources.

> *"...we decide how we're going to spend the PCTs money in the next financial year, who we're going to give it to and what for."*
>
> *(ID7, male, PCT Director)*

4.3.2 Commissioning principles

Decisions about what, who, how, and when to allocate resources appeared to be driven by three common principles that were identified throughout the interview accounts. These principles are summarised below.

Claims on resources should be compared and judged against one another

First, participants suggested that decisions over claims on resources should be compared against each other in some way and that this required an element of judgement in terms of assessing the relative "value" or merit of claims.

> *"Priority setting is essentially I think about trying to... assess the relative value of competing demands for resources for investment..."*
>
> *(ID17, Male, PCT Exec)*

Claims should meet a common set of objectives which need to be balanced

Second, participants suggested that decisions over claims on resources had to meet or fulfil a range of objectives and "influences". These were described as clinical objectives (e.g. increasing clinical benefits and reducing clinical risks), economic objectives (e.g. achieving financial balance), political objectives (e.g. satisfying directives from central government, meeting government standards, addressing local demands), and social objectives (e.g. improving equity). In the extract below, decision-making is likened to a "spinning" act ("it does feel like you're spinning a lot of plates in the air at the same time") in which these objectives and influences have to be closely (and somewhat skilfully) monitored in order to ensure that they are kept "spinning".

> *"...it does feel like you're spinning a lot of plates in the air at the same time. You've got influences coming from all over the place, whether they are economic, whether they're social, whether, you know, they are to do with political influence..."*
>
> *(ID1, Female, PCT Exec)*

The act of decision-making portrayed above is also explicitly depicted in the following extract which describes decision-making as "balancing various bits of the jigsaw":

> *"... it's about balancing various bits of the jigsaw."*
> *(ID6, Female, PCT Director)*

The implication of this is that these objectives and influences ("various bits of the jigsaw") have to be balanced against one another (or, in economic terms, be traded-off against one another) when considered within the 'bigger picture' of decision-making.

Claims should achieve value for money

Third, participants suggested that decisions over claims on resources should be made in such a way as to maintain financial balance and achieve value for money – expressed below as "making the biggest amount of impact for the money":

> *"At the end of the day we have £350m of taxpayers money which I am charged, as accountable officer, for using wisely i.e. not only using properly ... but also, for the decisions that we actually make, say 'are we making the biggest amount of impact for the money we get?'"*
>
> *(ID5, Male, PCT Exec)*

Indeed some participants positioned this in terms "duty", suggesting that the PCT was responsible for ensuring financial balance and value for money on behalf of tax payers (as funders of healthcare) and the population served by the PCT (as the users of healthcare services):

> *"...we do take it very seriously that we are spending public money so we want to spend it to make the best possible use of it. We have a duty to do that to people."*
>
> *(ID8, Female, PCT Non-Exec)*

These results show that decision-makers share a common conceptual understanding of decision-making. That being: resources are scarce, claims on resources are competing, and choices and trade-offs have to be made. Decision-makers even went on to identify a common set of commissioning principles that they suggested ought to guide decisions about such choices and trade-offs. Collectively, these concepts and principles can therefore be defined as comprising the 'commissioning strategy' – a set of normative statements about what should guide decision-making. The commissioning strategy constitutes the first stage of the schematic model of commissioning discussed in Section 4.6.

4.4 Commissioning process: structures and methods

A large proportion of time in the interviews was spent describing commissioning in practice. Specifically two themes emerged from the interview accounts in relation to commissioning in practice: commissioning structures and commissioning methods, each of which is discussed below.

4.4.1 Commissioning structures

A number of structures were identified in the interview accounts. However, this analysis focuses solely on PCT structures and their roles in the commissioning process. These structures were described by participants as being both formal and semi-formal.

Formal structures were portrayed as being those that were accountable and responsible for decision-making. Those identified within the interviews included the PCT Board and the Professional Executive Committee (PEC):

> *"... the decision-making process within the Trust ... involves primarily working with my sort of fellow directors through the Executive Team, the Professional Executive Committee, and the Board."*
>
> *(ID7, Male, PCT Director)*

The PCT Board was described as consisting of both executive and non-executive members, whereas the PEC was shown to be primarily made up of primary care clinicians and other primary care health professionals as well as members of the PCT Executive Board.

Semi-formal structures were presented as multi-agency stakeholder groups, including representatives from provider agencies (both managers and clinicians), primary care practitioners, the local authority (where relevant), voluntary groups, and service users:

> *"we've got, you know, joint meetings between different primary care organisations, we've got decision-making bodies between ourselves and our acute providers through what's called the modernisation board, care streams, a range of different mechanisms."*
>
> *(ID10, Male, PCT Director)*

The exact constituency and remit of semi-formal structures tended to vary between PCTs, and were also described as varying over time, but they were generally labelled as health improvement groups (abbreviated to either HIGs or HIMPs), care streams, modernisation groups, or planning groups, that focused on specific disease areas, client

groups or policies. On the whole, these groups were managed through the PCT and held to account through the formal structures of the PEC and Board.

Structures were often referred to in terms of their roles within commissioning. The roles identified throughout the interview accounts could be divided into fulfilling three main functions in the commissioning process: supporting, debating, and endorsing decisions.

Supporting role of structures

First, an important role identified throughout the interview accounts was that of providing a supportive function in commissioning. In particular, participants emphasised the 'bottom-up' support provided by the semi-formal structures, portrayed as doing the "legwork" and working out the fine detail for commissioning decisions:

> *"So we have a planning system underpinning the Board and the Professional Executive Group for all of the major clinical priority areas and other areas involved in the NHS Plan. ...and those planning groups do all the legwork ..."*
>
> *(ID1, Female, PCT Exec)*

Debating role of structures

Second, structures provided a forum for considering and debating commissioning decisions prior to making recommendations. For example the PEC was depicted as a structure predominantly used to discuss and validate (or 'sound out') decisions with primary care clinicians, by providing the opportunity for clinicians to express their opinions and put forward their perspective. This is depicted in the following extract as a place where "professional voices can be heard".

"The role of the PEC quite clearly is to be a place where clinicians and health professionals voices can be heard and can take part in decision-making"

(ID8, Female, PCT Non-Exec)

Few participants made reference to structures that facilitated consultation with the general public in the same way.

Endorsing role of structures

Third, structures provided an endorsing function. This role was solely attributed to one structure – the PCT Board – which was often referred to as the 'final hoop' through which decisions had to pass before being 'signed-off'. This role was recognised by participants (both Board members and non-Board members) as removed from the "day-to-day", "nitty-gritty" commissioning work, conducted by the other structures:

"... these things are very much part of the bread and butter of the executive team and effectively the staff. And that's not really the role of either me or other non executives to get involved in the day-to-day nitty gritty."

(ID25; Male, PCT Non-Exec)

This role, therefore, was often described as the "veneer" that was applied to commissioning decisions made elsewhere within the organisation:

"... we'll report to the Board about whether we think what's been agreed, what the financial impact is of that on financial balance, and all that. But the board isn't going to truly get into the details I think. I think that's a veneer I think."

(ID11, Male, PCT Director)

4.4.2 Commissioning methods

The interview accounts revealed that there was no prescribed method for commissioning and consequently no single method could be identified as being used. Rather, commissioning appeared to be driven by several methods, elements of which were used within each of the PCTs. In this respect, five typologies emerged from participants' descriptions of commissioning. These present commissioning as being 'evidence-based', 'political', 'backroom', 'clinical', and 'historical'.

Evidence-based commissioning

'Evidence-based' is used herein as a generic term to denote the use of data and/or evidence-based information in commissioning. In terms of data, participants referred to the use of routine data such as epidemiological data (e.g. disease incidence, prevalence, morbidity, and mortality measures), secondary care data (e.g. hospital activity, length of stay, and mortality measures), and primary care data (e.g. consultation, referral, and prescribing rates). Evidence and information included: analysis of primary data (e.g. needs assessment, clinical, and cost effectiveness analyses); national policy documentation and guidance from the DH or NICE; and local reports from the SHA, PCT, public health, and local authority. Additionally, there was also reference to tacit or experiential evidence such as professional expert or user/carer opinions. There was no reference to conducting original research or the use of academic research output. The extract below summarises the above:

> *"Obviously there's more detailed analysis within each of the care streams because you rely on them to do that detailed work, both on historical spend and trends; previous investments; needs assessments; NICE guidelines; national targets; what users and carers bring to the fore as their priorities; what the professionals and trusts themselves are bringing together, so it's a real mix. But we try and make it as evidence-based as we can..."*
>
> *(ID9, Female, PCT Exec)*

Descriptions in the interview accounts revealed that evidence, as applied to commissioning, was utilised in two ways. First, evidence was used to predict or identify 'problem' areas by highlighting, as in the extract below, "needs" and "gaps" in the provision of service and the resources required to meet those needs:

> *"... in trying to identify needs and service gaps etc. they will be using a lot, you know, the core statutory collected information whether that is hospital activity data, morbidity and mortality data, or anything that the public health department normally provides..."*
>
> *(ID1, Female, PCT Exec)*

Second, evidence was used to justify or 'lend weight' to decisions in commissioning healthcare services. This is illustrated in the following extract which depicts the use of evidence in the form of a "check list" to inform decisions.

> *"... the PEC developed a series of statements around decision-making that would inform its decisions. ...it's a list which has things on like: is this value for money?, is it good clinical practice? does it fit with national priorities? has it been tested out with users and carers? and such, so they have almost a check list."*
>
> *(ID20, Female, PCT Director)*

However, participants suggested that evidence-based commissioning was not necessarily practised to the extent that they would have liked or that they deemed to be appropriate. It was evident within the interview accounts that evidence-based commissioning was not common-place but, rather, something to strive for.

Political commissioning

Many participants portrayed national and local politics as dominating commissioning. Reference to national politics was discussed in two ways.

Firstly, direct reference was made to the impact of Government and Government policies on PCTs. Changes in national Government (and therefore policies) and reorganisations of structures and roles were perceived as perpetual and integral to 'life' in the PCT. Indeed, one participant noted that, *"...the only constant thing in all that we do is change." (ID6, Female, PCT Director)*. Constant change resulted in instability for organisations and individuals who depicted themselves as spending most of their time learning about forthcoming changes, reacting to them, or recovering from them. Some referred to the impact that this has on the organisation (in terms of performance) and employees (in terms of job security).

Secondly, indirect references to politics were discussed in terms of the impact of centralised guidance, planning, and monitoring (collectively referred to as national drivers hereafter). Those cited in interview accounts included national policy and planning guidance issued by the DH (e.g. the National Service Frameworks, the NHS plan, Public Service Agreement and access and waiting time targets), as well as guidance and targets issued through the special health authorities (e.g. inspection and key performance indicators monitored by the Commission for Health Improvement - the predecessor to the Healthcare Commission), and mandatory guidance on the provision of new technologies (medicines, therapies, and procedures) in the NHS issued by NICE. The fixation on these drivers is portrayed in the following extract:

"The key thing that drives us has to be what comes through from national and SHA policy and that's what tends to go into the LDP [local delivery plan], so that might be the public service agreement targets or other NHS planned targets, or NSF targets. It is the central imperatives, the central objectives which we tend to look at."

(ID31, Female, PCT Director)

The national drivers were discussed both positively and negatively in the interview accounts. Participants emphasised the laudable clinical and moral aims upon which the national drivers were perceived to be founded and referred to national drivers as providing a clear direction for commissioning based on the collective achievement of a common set of goals. However, participants also considered national drivers to be contradictory, sometimes irrelevant, narrow in focus, highly prescriptive and inflexible. Moreover, the national drivers were typically described by participants as "the must-dos" and it was suggested throughout the interviews that the PCTs tended to focus on reacting to and directing/allocating resources towards the national drivers first and foremost. Colloquial phrases such as the "hang em', flog em' issues"; the "hanging offences"; and "P45-ers"[e], were used by interview participants to suggest the seriousness of the implications of not doing so:

"... there are obviously must-do's in relation to the NHS plan and meeting waiting time targets ... by and large the local priorities have been the national priorities of access and waiting times, NSFs. The sort of hang em', flog em' issues."

(ID6, Female, PCT Director)

With respect to local politics, while only passing reference was made to local government, participants focussed on the influence of the SHA which was considered to be highly political given its close alignment with the centre (the DH). The SHA's role in

[e] In the UK a P45 is a Tax form received from an employer on leaving their employment. It is therefore often associated with being made unemployed.

commissioning was described as both 'guiding' and 'interfering'. In terms of providing guidance, the SHA was perceived by participants as 'holding the reins' for commissioning in line with its remit for setting and monitoring the strategic direction for commissioning across the health authority area. However, that this often resulted in the SHA setting additional targets and performance indicators for PCTs, was regarded as interfering. Additionally some participants discussed specific instances where PCTs were 'told' where to allocate resources by the SHA. The extract below depicts the roles of the SHA from one participant's perspective:

> *[talking about what goes into the local decision-making and planning process] "... what the SHA hints, suggests, arm twists, that we actually should be thinking about."*
>
> *(ID5, Male, PCT Exec)*

These two roles are also reflected in the interview accounts from SHA participants. These depict the SHA as, on the one hand, one of many voices in the system that is pointing out a direction for commissioning, and yet on the other, also imply that the SHA presides over the final decision to which PCTs are expected to defer:

> *"In that sense we [the SHA] appear to be just another voice in the system, we're not controlling it but we are just pointing out that the relative priorities that they have appear to be inadequate compared to their mission if you like, and their statutory responsibilities."*
>
> *(ID29, Male, SHA Director)*

> *"If we fundamentally disagree with the way that they [the PCTs] want to allocate the resources then we would have to pull them in and say that we disagree and argue the case with them why. And we'd expect them to agree with us that they've got to balance their freedom against the priorities that are set both commonly by all the PCTs and Trusts in this area and ourselves, and their local initiatives."*
>
> *(ID27, Male, SHA Non-Exec)*

Backroom commissioning

Backroom commissioning was described by participants as an extension of local political commissioning. However, in contrast to political commissioning which can be considered explicit (given that it is based on fulfilling policies, guidelines, or targets with which participants were all familiar), backroom commissioning is implicit because participants were not clear how decisions are made. Backroom commissioning was portrayed as being conducted in a closed environment "a smoke filled room", where 'big' deals about local priorities and the allocation of 'big chunks' of resource are brokered among the chief executives of the most 'important' organisations – the PCT, the acute hospital trust, and the SHA. This is reflected in the following extracts:

> *"... clearly there can be a smoke filled room, I guess with the NHS it wouldn't be, but instead a smoke free room in which a bunch of fairly influential people say 'so we'll do it like this then'."*
>
> *(ID11, Male, PCT Director)*

> *"... my guess at the moment would be that a lot of the big decisions, the major investment decisions, for the next year would be agreed between the Chief Execs and the Strategic Health Authority ... but us, at the different level, won't really know how they came to that decision."*
>
> *(ID10, Male, PCT Director*

Clinical commissioning

Clinical commissioning refers to the influence of clinicians (primary and secondary) and the clinical setting. This was explained in three ways.

First, clinicians were recurrently portrayed by participants as vocal in campaigning for or against healthcare service (organisational) and technological changes. This is

depicted below as clinicians "who are willing to dig their heels in and kick and fight for their particular service area":

> *"... if you look at investments ... it has been where there have been committed clinicians and people who are willing to dig their heels in and kick and fight for their particular service area and it hasn't always been 'well this is actually best value for money, this makes best use of what tax payers are paying in, this achieves better quality of life outcomes overall'."*
>
> *(ID31, Female, PCT Director)*

Participants suggested that a powerful clinical consensus about the best way to manage healthcare dominated decision-making and was rarely challenged by the PCT. This view was further evident in participants' portrayals of the Royal Colleges[f], who were depicted as lobbying bodies that impacted on commissioning by contesting decisions and shaping legislation.

Second, clinicians were portrayed as influencing commissioning through their behaviour within a clinical setting. Reference was made to GPs in particular whose referral patterns, demand management strategies, and prescribing behaviour were considered by participants to drive resource allocation decisions:

> *"We have to take account of known trends in resource use in areas like prescribing, for example, which again we might not have explicitly chosen to spend our money on, but is a reflection of individual, you know, it's been a clinical decision determined by GPs..."*
>
> *(ID17, Male, PCT Exec)*

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[f] There are a number of medical Royal Colleges England and Wales. Each is responsible for a different medical specialty, including Nursing. They generally act as advocates for their members by championing the values of their members, improving standards and training within their profession, and engaging with the government and providing leadership on health and healthcare issues.

Third, participants suggested that despite risk management strategies, unplanned events in the clinical setting impacted significantly upon commissioning decisions. These events were mainly described as administrative changes (e.g. changes in emergency admissions procedures), legislative changes (e.g. changes in working times, or wage increases), or unforeseen clinical events (e.g. disease outbreaks such as influenza, or hospital acquired infections).

Historical commissioning

Historical commissioning was described in the interview accounts as allocating resources in line with allocations made in previous years with slight adjustments for inflation and the addition of new service development funding. The examples used by participants portrayed historical commissioning as simply 'recycling' or 'rolling over' resources from one year to the next:

> *"... the majority of resources that the PCT get are spent on, you know, the same basis that we spent [them] last year. ... so the vast majority is just sort of recycled."*
>
> *(ID7, Male, PCT Director)*

This was justified by participants who indicated that the PCT did not start with a 'clean sheet of paper' and that patterns of service use were determined by arrangements inherited by the PCT from predecessor organisations:

> *"In fact a lot of what we do is based on historical reasons. We do a lot of stuff that the health authority did before us."*
>
> *(ID8, Female, PCT Non-Exec)*

Though participants recognised that this method of commissioning was not ideal, they also highlighted that the historical pattern of service provision was rarely questioned and was not the focus of commissioning decisions which were 'fixated' on the additional (often referred to as "marginal") new resources:

> *"there's a tendency to simply look at the marginal new money rather than the totality of the resource ... recognising that at the moment we're dealing with a fixation of the marginal new monies."*
>
> *(ID24, Male, PCT Director)*

Participants therefore speculated that some current patterns of service use were perhaps redundant, but making changes to these current patterns was a major challenge for commissioning. This is described below with reference to the lack of prioritisation of "established activity".

> *"I mean the biggest problem about resource allocation is that you can't necessarily achieve rapid shifts in the balance of resources between what you might like to do ideally in terms of resource allocation and reflecting priorities. Because essentially you've got an enormous burden if you like, or under-burden, of established activity which isn't necessarily overtly prioritised."*
>
> *(ID25, Male, PCT Non-Exec)*

These results illustrate the structures and methods that guide decision-making in practice (as opposed to in principle, as reflected in the results presented in 4.3). The results show that there are a number of structures within the PCT with roles for identifying, debating and validating, and endorsing commissioning decisions. However, the methods used by the PCT to make decisions, including political, historical, and clinical commissioning seem to be influenced by a number of structures external to the PCT such as NICE, the DH, SHA, and the Acute Trusts. Furthermore, it is not clear how the commissioning concepts and principles outlined above in the commissioning strategy are realised through the PCT structures or the commissioning methods. The

themes of structures and methods used in commissioning can be described as constituting the 'commissioning process' as illustrated from a positive perspective. The commissioning process constitutes the second stage of the schematic model of commissioning as discussed in section 4.6.

4.5 Commissioning performance: outcomes and constraints

Reflecting on the commissioning process, participants focussed on what they perceived to be the weaknesses of the current system. Two themes emerged from the interview accounts that presented these weaknesses as first, negative outcomes of the commissioning process, and second constraints in the commissioning process.

4.5.1 Commissioning outcomes

Participants consistently and repeatedly referred to the commissioning process as ad-hoc, reactive, and, by implication, lacking 'rationality', strategy, planning and management. Specifically, the second of the extracts below depicts this using the metaphor of bridge building to contrast a rational planning process involving identifying the type of bridge needed, the cost of the bridge, and project managing the build of the bridge, with the reality of PCT commissioning which is, by implication, reactive, lacking any formal structure and planning.

> *"I don't think we are always ...taking decisions based on evidence, objective information that we examine in depth. I don't think we look at best value in terms of the use of resources. And I don't think we look at any concept of health gain in terms of the decisions that we take."*
>
> *(ID1, Female, PCT Exec).*
>
> *"...the idea that we have a rational planning process is a bit like, you know, we're going to build a bridge so we will get some resources, we will choose a design that's affordable, we'll do some project management to build it, and it's*

nonsense. It's more like they look out there and think, 'oh they're building a bridge over there, better get out there and work out how we're going to afford it'. And actually nobody in this age does the planning permission bit or the setting up the feasibility, nobody ever does that."

(ID29, Male, SHA Director)

Furthermore, participants emphasised the lack of transparency in the process, noting that, although they desired transparency in commissioning ("we strive for transparency") and there were systems in place that should have ensured transparency in commissioning ("In theory it is of course [transparent], you know it comes up through, goes through the Board, the Board makes the decision"), the basis upon which the commissioning decisions were made and where they were made was often not clear.

"I mean we aim to be a transparent organisation [...] I think we strive for transparency but I don't think we achieve 100% transparency at the moment."

(ID12, Male, PCT Non-Exec)

"If you ask members of the public, most NHS staff, a lot of GPs, they wouldn't know what the decision-making process is. So it's definitely not transparent. In theory it is of course, you know it comes up through, goes through the Board, the Board makes the decision. But when it actually comes to making the decisions, where the decisions are made, that's not transparent. Nor are the criteria on which those decisions are based."

(ID10, Male, PCT Director)

Additionally, participants discussed, with mixed views, the 'fairness' of the process. As with all these outcomes, there was consensus that an unfair process would be an accidental (rather than deliberate) consequence, but that it was hard to judge whether fairness was achieved:

"... we do aim to be fair, but it's not always that easy given that some things are historically weighted one way or another. It's quite hard to move from a historical perspective to a current perspective."

(ID8, Female, PCT Non-Exec)

4.5.2 Commissioning constraints

Constraints on PCTs (the organisation and individuals within the organisation) in the commissioning process were defined as limiting the ability of the PCT and decision-makers to undertake commissioning and were used to explain or justify the commissioning outcomes. In the interview accounts commissioning constraints were commonly described in three ways: a lack of control and choice in commissioning, a lack of capacity in commissioning, and a lack of cooperation in the commissioning process.

Lack of control and choice in commissioning

In the first of these constraints decision-makers suggested that local commissioning was controlled by organisations and structures outside the PCT. In particular, participants tended to focus on the influence of central government and the impact of national drivers which were perceived to dominate commissioning and drive commissioning from the top:

> *"...there's a lot of control from above from the Government, so we have a lot of national targets to meet and that's not an option, we have to meet them."*
>
> *(ID8, Female, PCT Non-Exec)*

Indeed, in the extract below decision-makers are described as being agents of the government and the PCT is portrayed as an implementer of Government targets without question or active involvement – it is simply an extension of the Government:

> *"Yeah, and also the position from above and, you know, I've lost count the number of times GPs tell me, in the most friendly manner, you know, don't take it personally, we're just saying, we see the PCT as agents of the Government, you know, you have Government targets you're tasked to achieve."*

(ID1, Female, PCT Exec)

Furthermore, participants suggested that the focus of local level commissioning was on the implementation of centrally driven and monitored objectives, and that the performance management of national drivers (described in Section 4.4.2) meant that resources were often directed toward meeting the national drivers at the expense of local priorities, illustrating tension between national and local decision-making:

> *"...in reality there is a lot of constraint about what we can ...what we have the freedom to do because it's either prescribed because of a range of national, either frameworks or objectives in some key performance indicators."*
>
> *(ID16, Female, PCT Non-Exe)*

> *"...national targets [push] you to invest in areas that you wouldn't necessarily see as a local priority at the expense of those local priorities."*
>
> *(ID7, Male, PCT Director)*

In these descriptions, participants position themselves (both explicitly and implicitly) as having little choice or control in local commissioning decisions which are constructed as being driven centrally through the national targets. Indeed, as one participant puts it "you aren't a total free agent", equating the process to one of being in a "strait-jacket of national prescription":

> *"Well the important thing is that a lot of activity actually comes badged and you get specific funding for doing specific things. So in a sense you aren't a total free agent. There are discretionary things, for example the whole area of fertility treatment until fairly recently has been one which has historically been left for local determination. And we're now getting a policy line established through the government which is seeking to standardise. It's actually interestingly standardising at a lower level of service than we currently operate, so that's an interesting one. There aren't sort of clear and straightforward answers to these things, because although you feel as if you are and to a degree you are in a strait jacket of national prescription from which follows national resource there is no flexibility on the margin to actually be able to follow some of the local issues."*

(ID25, Male PCT Non-Exec)

In this extract, the extent of control exerted by the national drivers is illustrated using the example of central policy being imposed in the area of fertility treatment to denote the level of 'prescriptivism' faced by local decision-makers. The construction of local commissioning as restrained and controlled by the imposed national drivers is also replicated in the extract below:

> *"The big question is, is there too little or too much national guidance? I think everybody would say there is too much. There is very little room for manoeuvre. The agenda is so fast that one of the reasons we don't commission properly is that we don't have the time to do it properly because we're always reacting to another national initiative or another target."*
>
> *(ID5, Male, PCT Exec)*

Again, in this description, decision-maker 5, a PCT Exec, portrays the national drivers as being prolific ("…there is too much"), constraining ("There is very little room for manoeuvre"), and driving local decisions ("we're always reacting to another initiative or another target").

As well as the Government, other health sector organisations, particularly the Acute Trusts (hospitals) were also depicted as asserting control over the commissioning process. The following extracts describe how control is held by the Acute Trusts (or is perceived to be held):

> *"… And let's be honest about it, Acute Trusts have always felt they've had the power in the system, they've wielded the clout and that nobody can challenge them. Well commissioning on a [larger scale] puts us on an equal footing with*

them. And hopefully when we ask them things now they will tell us, because they've [the Acute Trusts] pulled the wool over our eyes something chronic. And it's really difficult getting decisions out of them. And things like... and services still get provided and patients still access things, but we haven't had service level agreements for all the services that we've been commissioning. And it's just impossible to find out the information on that. So I hope that the new approach to commissioning means that maybe we'll be able to get good information, get them [Acute Trusts] to take us seriously, which I don't think they have up to now."

(ID8, Female, PCT Non-Exec)

In the above extract, the Acute Trusts are positioned as more powerful and more aggressive. Additionally, the extent to which the Acute Trusts hold control is further illustrated here by describing how services have been provided without the knowledge of the PCT, and the absence of contracts for the provision of those services.

> *"Hospitals hold all the aces at the moment. And therefore the problem with the hospital holding all the aces is their motivation is not a resident based one, it's an organisational based one and the hospital's job is to make their organisation successful by providing very good, high quality cost efficient services. They're not too worried what goes on anywhere else. That's where the PCTs need to come in and take charge of those negotiations."*
>
> *(ID26, Male, SHA Exec)*

In the second of the extracts (above), commissioning is depicted as a game of cards that the Acute Trusts, as winners, are in charge of (i.e. controlling). Furthermore, it is implied that the PCT needs to contest the control of the Acute Trusts and take charge of commissioning itself.

Lack of cooperation in commissioning

In the second of these constraints, participants described a lack of cooperation in commissioning between themselves and the other individuals and organisations that make up the health service. Indeed the healthcare system was often presented as

fragmented – split by organisational boundaries that created barriers (obstacles or hurdles) inhibiting cooperation in commissioning. This is explicit in the extract below which refers to the health service as made up of separate, competitive, structures:

> *"Right. Well I suppose I mentioned barriers in that I ... this very much reflects me personally, but because I came to health completely green, I was very much struck by how it is not ... it isn't a national service, it isn't an integrated service, and, you know, the word silos are often used, you've got all these ... separate structures and competitive. You know, you'd see that there is a sort of between ... you know, even within the city there was this sort of competitive approach [...]."*
>
> *(ID16, Female, PCT Non-Exec)*

Furthermore, participants reasoned that the health service was not only fragmented by the bricks and mortar that constituted the separate organisational structures, but that these structures created and were defined and maintained by organisational and professional boundaries that supported different cultures, objectives, and behaviours that ultimately inhibited a collective approach to commissioning. This view is reflected in the following extracts:

> *"big boundaries are between ourselves and the secondary and tertiary sector which are largely historical in terms of the secondary care not fully understanding the new role of the primary care commissioning process and being somewhat distrustful of it in terms of losing out or all the rest of it."*
>
> *(ID12, Male, PCT Non-Exec)*
>
> *"... people have, you know, been there a long time, they work to a ... in a particular way and it's ... it takes a long, long time to change behaviours throughout the organisations. [...] So there is still very distinct sort of medical barriers, you know, medical behaviour boundaries. I don't want to sort of attribute them to any one profession but they are medical organisational boundaries that we have always done things like this, you know..."*
>
> *(ID16, Female, PCT Non-Exec)*

Not only were organisational and cultural boundaries highlighted by participants as inhibiting a collaborative approach to commissioning, but they were also described as

causing hostility and conflict between organisations, thus further inhibiting collaboration:

> *"I think currently the way we think about services and the way secondary care providers think about services is different and is configured differently and we haven't cracked a way at arriving at a joint view through participation on both sides. So they come to a conclusion, we come to a conclusion and then some outcome is brokered in sometimes quite brutal decisions about money or power."*
>
> *(ID11, Male, PCT Director)*

> *"It's actually, up until now we've been saying, and the battle is does it go into tertiary, secondary primary and indeed social. There's also a history I think of distrust in terms of local authority and Health in the fact that local authorities think Health are loaded with money, and Health thinking the local authorities all they want to do is grab health's money and run. And again this is ... that is cultural barriers."*
>
> *(ID5, Male, PCT Exec)*

Notably, in the extract above, decision-maker 5, a PCT Executive, suggests that decision-making (and resource allocation specifically) is a "battle" and that organisational boundaries give rise to cultural barriers which in turn divide organisations and create a climate of distrust. This latter point is further illustrated in the extract below:

> *"The organisations have traditionally tended to operate as islands and sort of pull up the drawbridges and not want to share risk across, so the game has been to load the risk into the other organisations, financial or management or whatever it is, and that's the PCT ... the commissioners as well, you know."*
>
> *(ID31, Female, PCT Director)*

In this extract, the use of islands and drawbridges to represent health service organisations emphasises the lack of communications and cooperation between these

organisations. Here, conflict (the commissioning 'battle') is portrayed as inevitable – a symptom of divided organisations lacking in communication and trust.

Lack of capacity in commissioning

The last of these constraints was actually often cited by participants as the most significant in commissioning:

> *"Capacity is the biggest constraint ... there's loads of data around but what we don't have is the capacity, be that human beings or be it information systems to analyse that and turn it into usable information".*
>
> *(ID20, Female, PCT Director).*

Specifically, capacity was portrayed in three ways – as human capacity (i.e. in terms of the number of people involved in commissioning), capability (i.e. in terms of ability to undertake commissioning), and time (i.e. in terms of the amount of time dedicated to commissioning). In their descriptions, each definition of capacity is constructed as deficient – lacking people, skills, and time for commissioning.

The following extracts illustrate the different definitions used to describe capacity. The first of these highlights capacity in terms of human capacity and capability. Participants commonly reported that the number of individuals possessing analytic and critical appraisal skills was limited:

> *"I think that there's very little ... there's not enough people with information handling and analytical skills within the NHS - I think they are in short supply. And we do need to find ways of accessing that sort of expertise. But in a way that can be, not just vested in a handful of experts, but translated into knowledge which helps structure people's thinking, yeah?".*
>
> *(ID17, Male, PCT Exec)*

Furthermore, participants commonly referred to a lack of support tools or methods, and a lack of information that they perceived necessary for enhancing capability for commissioning:

> *"our problem is that we haven't got a systematic approach and we haven't got the information and all the other things that we would need in order to do that"*
>
> *(ID31, Female, PCT Director)*

> *"in some instances it's quite surprising I think that, you know, the lack of data you might imagine is just routine even down to, you know, 'how many people is a certain service treating?' You know, sometimes that basic information is not there."*
>
> *(ID7, Male, PCT Director)*

Time was depicted in two ways – first, in terms of the amount of time that could be dedicated to commissioning and, second, in terms of the experience of decision-makers and the organisation more broadly (i.e. length of time in service). The extract below indicates the first of these, portraying commissioning as requiring a lot of time to do 'properly'. Thus, given that time is limited (there are only a set number of hours in a day), the amount of time that can be spent on commissioning is restricted:

> *"The big things which I think impede the commissioning process, and I think this is what it's about, prioritisation is a part of the commissioning process, 1; information and 2; capacity, management capacity, the time to be able to say, let's look at the evidence, let's look at the needs of our local population, let's look at, you know, best models of practice from other areas, let's look at saying, you know, if we're prioritising that also it is about saying ... not necessarily about saying well it's either this one or that one, but about saying well we could go for either/or, or we could say a cut down model for both of them, or we could say let's look at different models altogether and that actually requires an awful lot of time, it's not just about picking and choosing between two different things."*
>
> *(ID31, Female, PCT Director)*

The second depiction of time as experience was described by participants in terms of the fact that human capacity and capability for commissioning can only be acquired over time and that an immature organisation (one that has not been in existence long), necessarily lacks capacity for commissioning. In the extract below, decision-maker 19, a PCT director, describes the 'newness' of the PCT and the problems of this associated with commissioning. Specifically, the lack of capacity in commissioning is directly attributed to the length of time that the organisation has been in existence. This is further demonstrated by the suggestion that time (and a stable period of time) is the panacea that the PCT needs to be able to develop capacity for commissioning.

> *"... so you go back to the fact of, as a new organisation, PCTs do have capacity problems in taking on all the workload, because we have if you think about it, had quite a lot to cope with, certainly this year we've had the new GMS contract and that meant not only discussing it and trying to get our heads around it, but at this year end we've had to sort out thirty three contracts, you know, we had to do the year end, we're doing the budgeting, and certainly from my perspective I haven't got any more staff, you know so they all wear several hats, and despite the best planning you could do, we are finding that it is difficult to deliver on some of the timescales, but I think that's part of the reason there is an interest in working the PCTs, you are not tied to a narrow area, and it is changing, and hopefully now that we've become more mature as an organisation, we've got the capacity and if we have got a stable period we can actually develop more, and we can demonstrate to people the benefit of having a [Nowhere] PCT which does try to look at things in a new light, isn't forever leading with, you know, the money where it was originally invested, but is prepared to try and change things for the better for the population."*
>
> *(ID19, Male, PCT Director)*

These results describe the outcomes resulting from the commissioning process (described in the previous section), and the constraints in the commissioning process. In terms of outcomes, decision-makers portrayed the commissioning process as unsystematic and lacking transparency. Furthermore, they highlighted several constraints or barriers in the commissioning process that justified these outcomes. In particular, the commissioning process was depicted by decision-makers as dominated by politics, controlled by central government through the implementation of national performance assessment targets and national guidelines. Additionally, decision-makers

described the impact of organisational boundaries in creating and maintaining different (and often conflicting) cultures, which prevented organisations cooperating with one another; and generated hostility between organisations. Finally, decision-makers identified a number of deficiencies that limited their ability to undertake commissioning including a lack of capacity (i.e. numbers of people), capability (i.e. skills, data and information), and time. Commissioning performance is defined in relation to the commissioning strategy. Together, the outcomes, as weaknesses resulting from the commissioning process, and the constraints, as barriers inherent in the commissioning process, describe the 'commissioning performance'. The commissioning performance constitutes the third stage of the schematic model of commissioning as discussed below in section 4.6.

4.6 Schematic model of PCT commissioning

The empirical evidence generated from the thematic analysis of the interview accounts was used to construct a schematic model of PCT commissioning. The model encompasses the key themes discussed in this chapter and seeks to provide an overview of how these themes relate to, and impact on, each other in the current context of commissioning. The model is presented in Figure 4.2, and illustrates the results in three stages from setting the commissioning strategy, executing the commissioning process, and reflecting on the performance of the commissioning process.

The commissioning strategy is illustrated on the left of this figure and illustrates the commissioning concepts and commissioning principles as a set of normative statements about what should guide decision-making within the PCT. It is interesting to note, given

the remit of this thesis, these commissioning concepts and principles are not dissimilar to those concepts and principles promoted within health economics.

However, the commissioning process, pictured in the centre of this figure, is less straightforward than the simple application of the commissioning strategy would perhaps suggest. The commissioning process illustrates, from a positive perspective, how commissioning is undertaken, the PCT structures utilised in commissioning, the impact of structures external to the PCT, and the resulting methods that drive commissioning. Indeed, structures external to the PCT (central government and health authorities, special health authorities, decentralised government and health authorities, healthcare providers, and patients and the public) are shown as influencing the PCT structures and thus the commissioning methods which consist of a mix of evidence-based, political, clinical, historical, and backroom commissioning. As such, although the commissioning strategy outlines a set of concepts and principles for guiding decision-making it is not clear that these are translated into practice through the process of commissioning. There is a disconnection between the PCT commissioning structures and the commissioning methods (as demonstrated by the broken line connecting the structures and methods in Figure 4.2). These methods are dominated more by the structures external to the PCT. Therefore even if the commissioning concepts and principles are present in the PCT structures they do not drive commissioning.

Commissioning performance, on the right of Figure 4.2, highlights the deviation of the commissioning process from the commissioning strategy. Relative to the commissioning strategy, commissioning performance is illustrated as being poor. This

is defined by the commissioning outcomes which demonstrate weaknesses of the process, and the commissioning constraints which demonstrate the barriers inherent in the PCT that limit their ability to undertake commissioning in line with the strategy and justify the commissioning outcomes.

4.7 Chapter summary

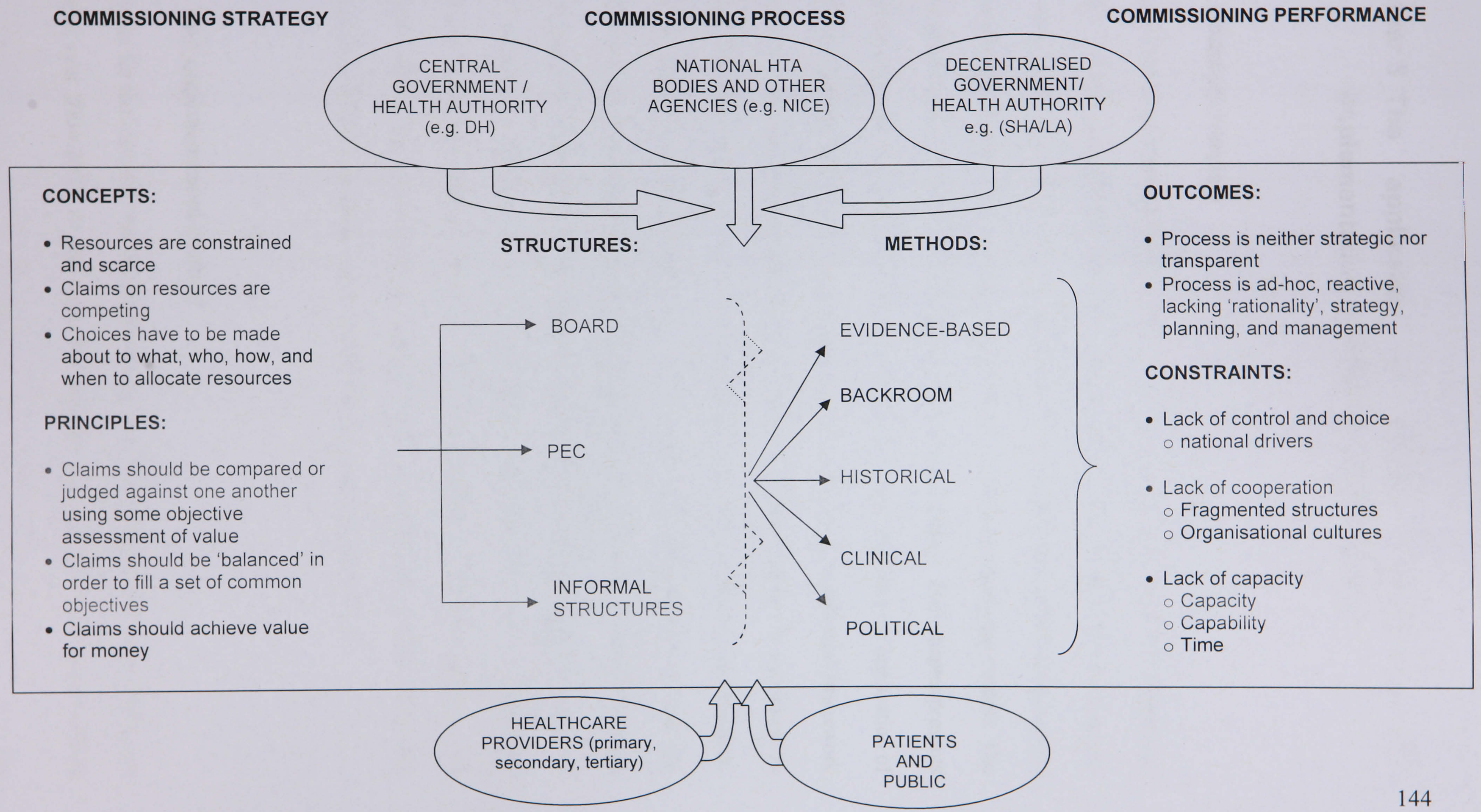
This chapter presented the results from the first phase of the PAR – planning a change – which examined the current organisational context within which the research was being conducted. The results of the analysis of the interview data were used to build a thick description of the current commissioning context and the constraints inherent in the commissioning process. In addition, the empirical evidence generated through the analysis was used to construct a schematic model of PCT commissioning.

These results show that there seems to be a level of common understanding and acknowledgement amongst decision-makers that resources are scarce, claims on resources are competing, and that choices and trade-offs have to be made. Decision-makers even identified a common set of commissioning principles that they have suggested ought to guide decisions about such choices and trade-offs. It is encouraging to observe that there seems to be a level of common understanding amongst decision-makers of what commissioning is about. Furthermore, these principles are not dissimilar to those promoted within health economics.

However, less encouraging but not so surprising, is the evidence that these principles do not seem to translate to practice. Although a number of structures with roles for identifying, debating and validating, and endorsing commissioning decisions were identified within the PCT, the process and the resulting decisions appeared to be driven by structures outwith the PCT through political, historical and clinical commissioning 'methods'. As a result, the outcomes of the commissioning process defined the process as unsystematic and lacking transparency, and constraints inherent in the process were identified as limiting the PCTs and decision-makers' ability to undertake commissioning in line with the strategy and justified the commissioning outcomes.

The next chapter presents the results from the first part of the second phase of the PAR – the action – and describes the application of PBMA as a potential vehicle for introducing economic principles into the commissioning process within a commissioning healthcare organisation in an attempt to improve the commissioning outcomes and to overcome the commissioning constraints identified here.

Figure 4.2 Schematic model of PCT commissioning



Chapter 5 The application of PBMA: results of the implementation of PBMA in PAR phase II

5.1 Chapter overview

The previous chapter presented the results from the first phase of the PAR – planning a change – which examined the current organisational context within which the research was being conducted. Specifically, Chapter 4 provided a thick description of the current commissioning context and the constraints inherent in the commissioning process. The second phase of the PAR involved acting and observing a change. This chapter presents the results from the first part of this phase – the action – and describes the application of PBMA as implemented within a commissioning organisation as a potential framework to overcome the constraints identified in Chapter 4. The Chapter is structured as follows. The following section (5.2) outlines the organisational context for the research, including the role of the researcher in the organisation with respect to both the development and implementation of PBMA, and the observation of it. The third section (5.3) reports the application of PBMA to the organisational context in relation to the `7 steps' outlined in Chapter 2, 2.2.3. This section describes how the 7 steps were developed iteratively and interactively with decision-makers and stakeholders, and applied within this organisational context. The observational results from the application of PBMA are discussed in the following Chapter (Chapter 6).

5.2 The organisational context

The focus for the research was the North of England. The research took place during the financial year 2004-2005. At this time, the regional Strategic Health Authority (SHA)

had recently issued a new 'vision' for health and healthcare in the region (Northumberland Tyne and Wear Strategic Health Authority, 2004). As part of this, planning and commissioning were identified as integral to achieving this vision. Indeed the SHA stated that Local Delivery Plans (herein LDPs):

> *need to be developed based on a transparent and comprehensive assessment of existing activities, capabilities and shortfalls within and across organisations. Rather than concentrating on incremental changes and investment around the margins the focus should be on the whole of services. Where gaps exist and reform is necessary to delivery it needs to be identified at the early planning stage and should be able to demonstrate the efficiency gains both in terms of qualitative and quantitative outcomes.*
>
> (Northumberland Tyne and Wear Strategic Health Authority, 2004).

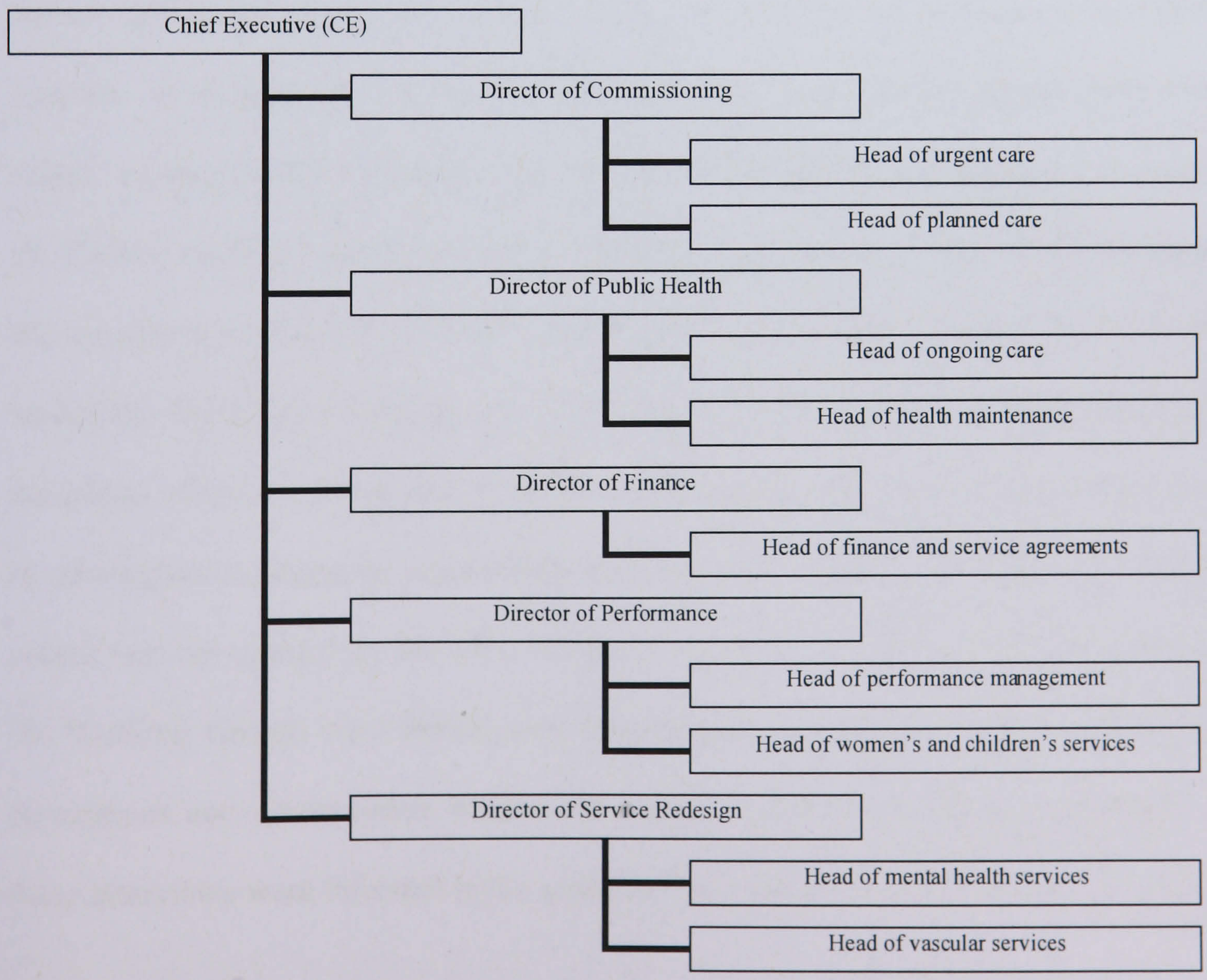
In line with this new vision, changes in the commissioning arrangements in the region resulted in the creation of a new organisation referred to here as the 'Commissioning Consortium'. The Commissioning Consortium constituted three primary care organisations (here, PCTs). The three PCTs that made up the Consortium covered a geographical population of approximately 800,000 and had a combined operating budget of approximately GB£1 billion. The management team of one of these PCTs took on the additional role of the single management team for the Consortium. The Consortium was responsible for commissioning acute services only on behalf of the Consortium. Primary and social services continued to be commissioned by each of the PCTs independently of the Consortium. In the case of the PCT that shared its management with the Consortium, the Consortium had additional responsibility for commissioning primary and community care from the PCT provider arm.

The Commissioning Consortium single management team consisted of the Chief Executive (CE), 5 Directors (typical to most PCTs), and 9 Heads of Service. The Heads

of Service were organised into streams of care – a common set or 'portfolio' of services for which they were responsible for managing and commissioning. The organisation of the management team is illustrated in Figure 5.1.

The CE of the Commissioning Consortium was responsible for implementing the SHA's vision for commissioning and was keen to see how PBMA could be utilised within the commissioning process. At his request, a macro (organisation wide) PBMA exercise was undertaken to identify priorities for commissioning that would inform the LDP which spelled out the commissioning intentions of the Consortium for the forthcoming three years.

Figure 5.1 Commissioning Consortium organisational chart



5.2.1 The role of the researcher

For the period of the research, the researcher (the author of this thesis) spent three days a week working for the Director of Public Health (DPH) within his directorate, to apply PBMA and conduct the observation. The DPH himself, held an honorary post at the same University as the Researcher and had prior experience of and exposure to PBMA, albeit from a practical, as opposed to academic, perspective. Furthermore, the DPH had recently been appointed in the Consortium and, as the researcher (noted below), had a lot invested both personally and professionally in the successful completion of the PBMA exercise.

As an employee within the Directorate of Public Health, the researcher was called on to collect, collate and analyse data and information required for all the stages of the PBMA exercise. In addition, the role of the researcher also required advising the DPH when asked, working closely with him to develop and refine his ideas, and helping to present the PBMA exercise both within and outside the organisation. Unless otherwise stated, the researcher was present at all the meetings referred to in this Chapter. The role of the researcher during such meetings was primarily observational, though there were a few occasions where the researcher's opinion was directly sought and consequently given. In circumstances where the researcher's attendance at meetings was restricted (because access was not granted by the CE), informants (such as the DPH or other members of the Working Group) were interviewed following the meetings in order to elicit their perceptions and observations. Unlike the formal interviews conducted in Chapter 4, these interviews were informal in the sense that they were not electronically recorded or

transcribed. However, verbal consent was obtained to record the interviews as part of the observational field notes (Chapter 6, 6.2).

As well as being an employee within the organisation under observation, the researcher was employed as a health economist at the University and was undertaking this research in part towards a PhD, of which this thesis is the result. As a health economist, though not an established proponent of PBMA, the researcher was keen to highlight the potential of PBMA for commissioning and for the organisation to explore this potential by adapting it to their context. In light of this, the role adopted by the researcher throughout the research was predominantly that of an advocate of PBMA, though this was tempered to avoid being labelled or portrayed as a PBMA evangelist – a role often attributed somewhat negatively to the DPH by others within the organisation. Furthermore, the fact that much of the research was being used for a PhD increased the pressure to maintain the exercise and obtain a substantial set of data. The dual role of being an organisational employee yet conducting PhD research, however, seemed to go unnoticed by colleagues in the organisation who reacted as though they saw either one role or the other, not both. To some colleagues, therefore, the researcher was just another member of staff who worked for the DPH's team, while, to others, the researcher was external to the organisation, 'just a student', and someone with whom they could confide about problems with other colleagues for example.

5.2.2 Gaining access and stakeholder buy-in

An outline of the proposed PBMA exercise was developed by the researcher in collaboration with the DPH and agreed by the three PCT CEs that made up the Consortium. Following this, a detailed project plan and timetable were submitted and

signed-off by the Consortium CE (Appendix E). The project plan and timetable were presented to the Consortium Executive Board (CEB) where it was actioned by the Directors in absence of the CE (who was on annual leave). Additionally, the project plan was presented to the Heads of Service and the Directors at the Heads of Service away day. This meeting was convened by the CE (who chaired the proceedings) to address new staff and formally introduce the Commissioning Consortium. At this meeting the DPH and the researcher provided training to empower stakeholders with knowledge about PBMA and enable them to build a sense of ownership over the process. Training included presentations on the fundamentals of economics, economics approaches to commissioning, an introduction to PBMA, and the proposed project plan for the Consortium PBMA exercise. A copy of this presentation is given in Appendix H. Meetings were also held between the DPH and the Chairs of the three Professional Executive Committees (PECs) in each of the PCTs to engage them in the early stages of the process. A summary of the main groups involved in the PBMA exercise is presented below in Table 5.1 and also illustrated in Figure 5.3 in 5.3.3, whilst a summary of the meetings referred to above is provided in Table 5.2 below.

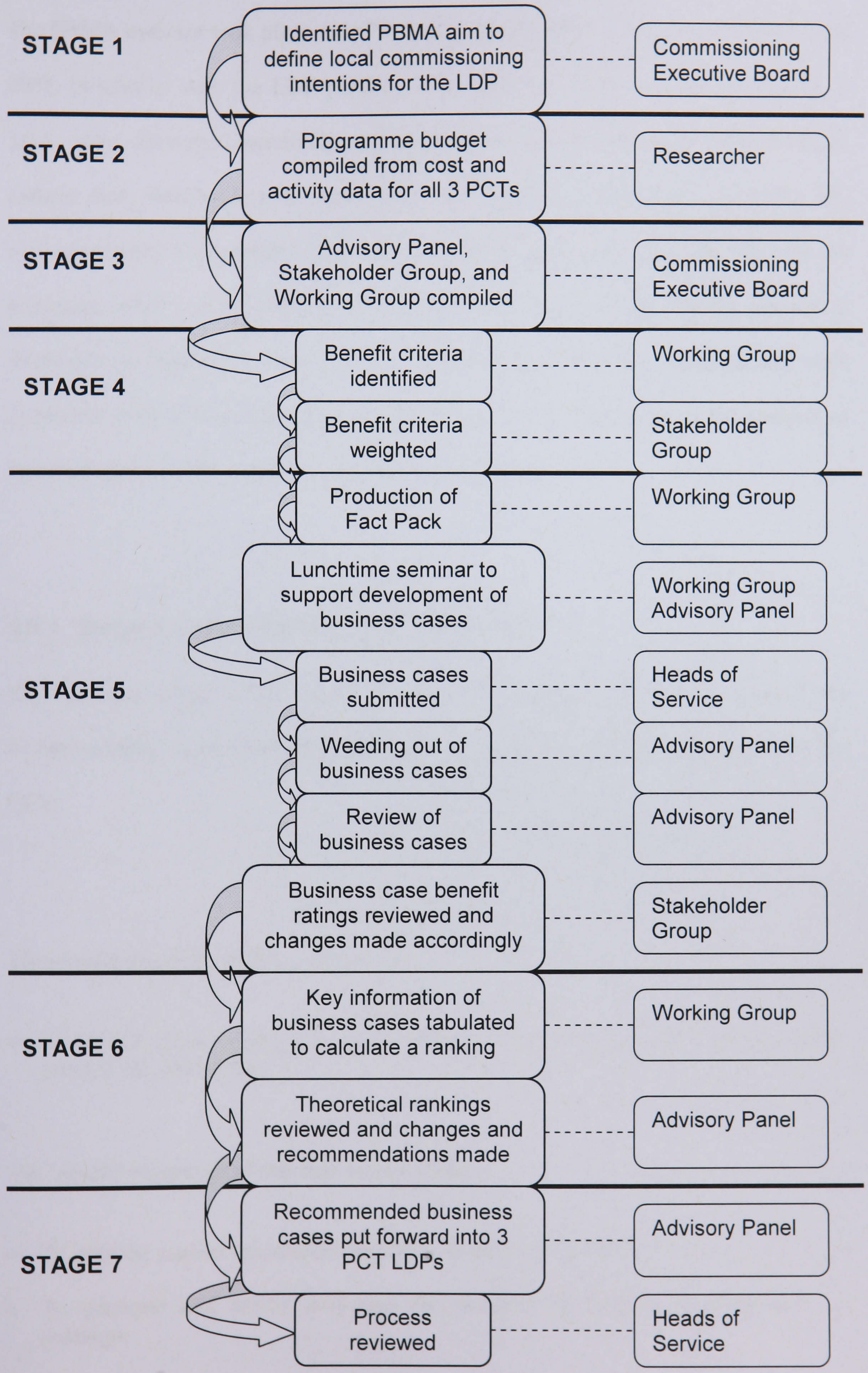
Table 5.1 Cast list of individuals involved in the PBMA exercise

Commissioning Consortium Chief Executive	*Advisory Panel*
Commissioning Consortium Directors (5)	*Advisory Panel*
Heads of Service (9)	*Heads of Service*
PCT PEC Chairs (3)	*Advisory Panel*
	Stakeholder Group
PCT PEC Members (60)	*Stakeholder Group*
Director of Public Health	*Advisory Panel*
	Working Group
Researcher	*Working Group*
Information Officer	*Working Group*
Public Health Trainee	*Working Group*

Table 5.2 Meetings conducted and observed as part of the PBMA process

Meeting	Purpose	Date	Observation status
First Advisory Panel	CEB forms Advisory Panel. PBMA project plan signed-off	22/09/04	Not present Key informant DPH
Second Advisory Panel	Agreement and sign-off of benefit criteria and decide who should weight them and how	30/09/04	Not present Key informant DPH
Heads of Service away day	Project plan presented along with introduction to PBMA	8/10/04	Present
Third Advisory Panel	Review of programme budgeting data	18/10/04	Present
Lunchtime seminar to support Heads of Service	Inform of progress on the PBMA, share information and experiences with peers, raise any problems/questions	30/11/04	Present
Fourth Advisory Panel	Initial review of business cases	02/12/04	Present
Fifth Advisory Panel	Weeding out of business cases	8/12/04 (Consortium wide) 13/12/04 (single PCT)	Present
Sixth Advisory Panel	Rating of business cases	16/12/04 (Consortium wide) 31/12/04 (single PCT)	Present
Time out session with Heads of Service	Update on PBMA progress	13/01/05	Not present Key Informant Information Officer
Seventh Advisory Panel	Ranking of business cases	20/01/05	Present
Regional conference on PBMA exercise	Review of PBMA, presentation of the results of the exercise and discussion about a way forward	30/03/05	Present

Figure 5.2 Flow-diagram of the PBMA process



5.3 The application of PBMA

The PBMA exercise took place over 7 months, running from September 2004 to March 2005, in parallel with the LDP process. The stages of PBMA outlined in Chapter 2. 2.3.3, were developed iteratively and interactively by the researcher with decision-makers and stakeholders in order to adapt and apply the process within the Commissioning Consortium. Each of the PBMA stages as they were applied are presented below. A flow-diagram of each of the stages of the PBMA process is illustrated in Figure 5.2. Additionally, an overview of the key meetings that were conducted within these stages in presented in Table 5.2. The results of the analysis of the observation of these stages is presented in Chapter 6.

5.3.1 Stage 1: determining the aim and scope

The aim and scope of the PBMA exercise were determined by the remit of the Commissioning Consortium and defined by the DPH following consultation with the CEB.

The overall aim of the PBMA exercise was:

- To identify local commissioning intentions for the local delivery planning (LDP) process for 2005-2008.

The specific objectives of this first exercise were:

- To map the current resource expenditure across the Consortium;
- To generate and assess proposals for potential investment, disinvestment, or redesign;

- To develop and agree a set of organisation-wide weighted criteria for judging proposals;

- To prioritise proposals to meet national, Consortium, and local PCT targets in 2005/2006

The PBMA exercise was conducted at the macro level of the Commissioning Consortium, i.e. across all streams of care and service areas. Since the Consortium was the focus of the exercise it followed that the scope of the exercise was confined to the commissioning functions of the Consortium, i.e. commissioning in relation to secondary care excluding the Ambulance Trust, and excluding Primary Care. However the Consortium also had a responsibility to commission primary and community services from its PCT provider arm. These functions were therefore also included in the exercise. The scope was further defined by the organisation's remit for service change that was partly driven by that fact that the Consortium was carrying an estimated deficit of £19 million.

Due to the remit and timescale of the PBMA exercise the focus for service change was restricted to primarily concentrate on examining efficiencies in relation to service performance against national targets (rather than the entire Consortium spend). For example, service areas for potential investment were identified as those services where targets were not being met or not likely to be met; service areas for potential redesign were identified as those services where targets were being met but in an inefficient manner (so that re-design of these service areas could release resources for investment back into the same service); and service areas for potential resource release were identified as those services which were not associated with any national performance targets service that could perhaps be reduced or redesigned. The PBMA also had to take

account of current or likely commitments to future spending such as forthcoming targets, local PCT priorities, prior LDP commitments for investment for 2005/6. and new policy imperatives. The aim and objectives of the exercise (outlined above) were met through the following stages of the PBMA process.

5.3.2 Stage 2: compiling a programme budget

The programme budget was assembled by the researcher. This comprised cost and activity data across the three PCTs, broken down by provider, and benchmarked against the other PCTs within the locality. Cost data were derived from the existing 2003/4 programme budget statutory returns prepared by each of the Consortium PCTs for the DH, as well as any appropriate local authority data and commitments. The programme budget cost data provided a break down of PCT expenditure (including all primary, secondary, tertiary and community care, and prescribing) by 23 programme categories classified by disease area, such as mental health, respiratory disease etc. This was the first year in which PCTs submitted programme budget returns and consequently the quality of the data was relatively poor. As a result, a considerable amount of time was spent collating the cost data from each of the PCTs and reconciling this with cost data from the local providers. This involved several individual meetings with finance personnel from each of the respective organisations. The activity data were obtained directly from providers by a public health trainee. Data on inpatient and outpatient activity for each programme budget category for each PCT were compiled using hospital statistics and performance data. The programme budget was able to provide an overall picture of the balance of broad resource expenditure across different programmes, and to highlight areas for further work. A copy of the Consortium programme budget is in Appendix I.

5.3.3 Stage 3: forming an advisory panel

Three groups were formed to undertake and steer the PBMA exercise – a Working Group, an Advisory Panel, and a Stakeholder Group. The Working Group comprised the DPH and those working within the Directorate of Public Health – a public health trainee, an information analyst, and a health economist (the researcher). The Working Group was responsible for project managing the PBMA exercise and undertaking the day-to-day work required for the exercise. However, aside from the researcher, who was employed through the University yet working within the Consortium to conduct this doctoral research, the members of the Working Group had additional responsibilities and commitments to those associated with the PBMA exercise. As such, the PBMA exercise was the researcher's only role within the Consortium and therefore the researcher had much invested in the conduct and success of the PBMA exercise, perhaps more so than any other member of the Working Group.

The PBMA Advisory Panel was formed from the existing Commissioning Consortium Executive Board (CEB) and included the Consortium Chief Executive, the Consortium Directors (5) and the Chairs of the local Professional Executive Committees (PECs) that made up the Consortium (3). The need for the Consortium to also prioritise its own primary care commissioning intentions for its own PCT LDP necessitated the establishment of a sub-panel that excluded representatives from the other PCTs that made up the Consortium.

The Stakeholder Group was formed from the existing PECs. All members of the three PCTs PECs that made up the Consortium (approximately 60 professionals) were invited to act as a professional advisory group within the PBMA exercise. As such the PECs acted as proxies to represent clinicians and stakeholders. In addition the nine Consortium Heads of Service were also invited to comment on the process at various stages. A diagram illustrating the groups involved in the PBMA exercise is presented in Figure 5.3.

5.3.4 Stage 4: determining locally relevant decision-making criteria

The Working Group compiled a set of draft benefit criteria. The group searched the existing literature (including grey literature) to collate information on: criteria developed by other health authorities and agencies in the UK and internationally; criteria developed by local government agencies in the UK; and local criteria used by the Consortium PCTs in the recent past. The results of the literature search were reviewed by the DPH and the researcher. Four key criteria themes emerged from the review. These were policy and strategy criteria, feasibility and practicality criteria, quality of life and length of life criteria, and quality of service criteria. A total of 18 separate sub-criteria were identified under these four main themes.

The themes and criteria were compiled by the DPH and researcher, along with a short definition of each, and presented by the DPH to the Advisory Panel and Stakeholder Group as a draft. Following this consultation, some of the criteria were merged and the final set was reduced to 16. The final set of criteria signed off by the Advisory Panel is presented in Table 5.3.

Figure 5.3 Diagram illustrating the groups involved in the PBMA process

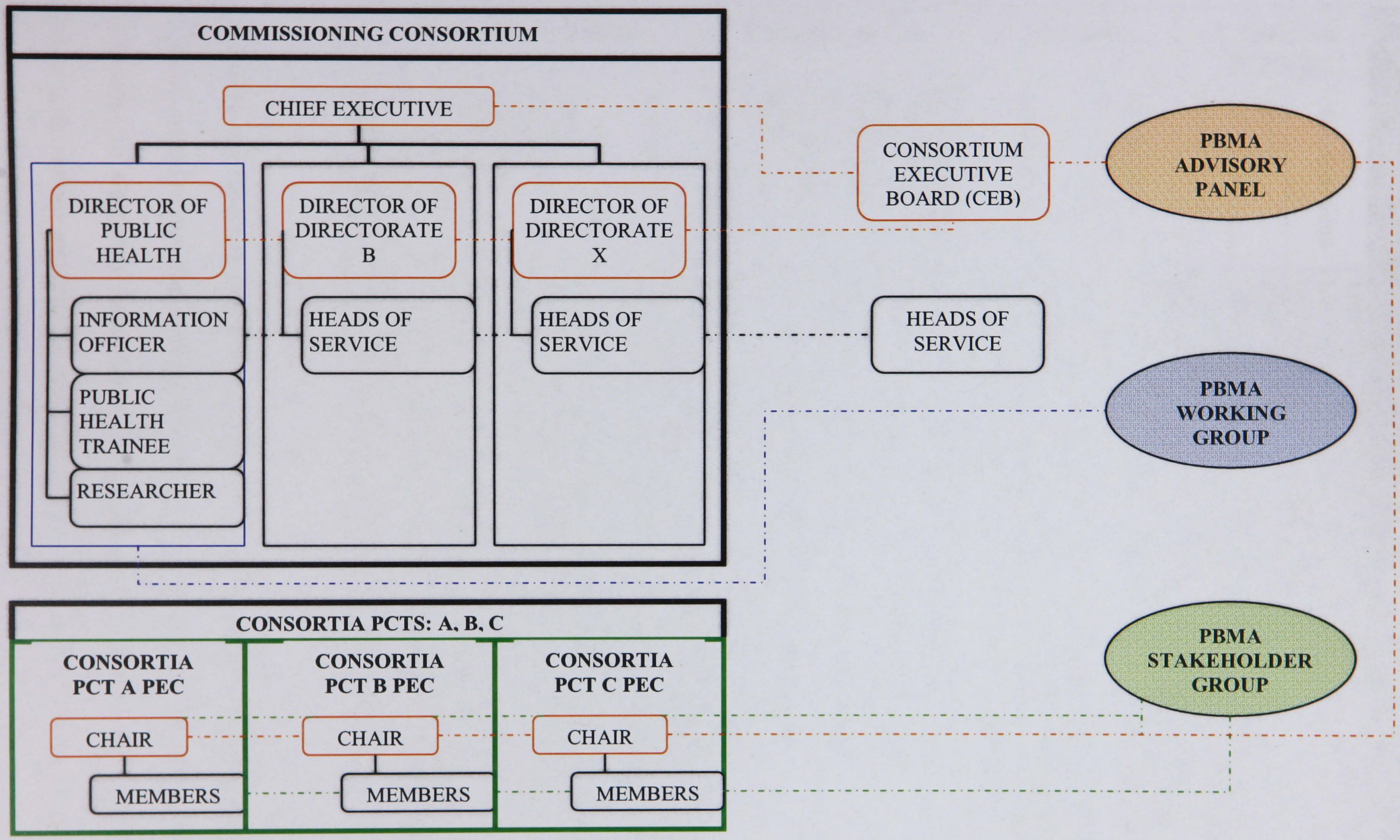


Table 5.3 Criteria and definitions

Criteria		Brief Definition
1. Policy & Strategy	local objectives	Meet local policy objectives and/or targets including existing LDP commitments; key targets or balanced scorecard targets; SHA vision and strategy
	national objectives	Meet national policy objectives including NHS Plan; National Standards; Public Health White Paper; Patient choice
	local support	Compatible with strategic partners' policies; has support of local MPs, the public and local community groups
2. Feasibility	affordability	Overall affordability. The overall cost is not prohibitive; if it is a disinvestment then pump priming or bridging finance is not prohibitive
	implementation	Ease of implementation. Will get clinician (primary and secondary), provider 'buy-in', is achievable within required timescale and there is a reasonable level of risk of option being implemented to plan and delivering anticipated benefits
3. Quality of Life	life expectancy	What is the likely impact on life expectancy?
	physical well-being	What is the likely impact on physical well-being?
	mental well-being	What is the likely impact on mental well-being?
	social well-being	What is the likely impact on social well-being?
	life circumstances	What is the likely impact on life circumstances?
4. Quality of service	accessibility	Ability for an individual to obtain needed healthcare within an acceptable timeframe; considerations include availability, cost of service, location, hours of operation, transportation, etc.
	equity	Accessibility to socially excluded, ethnic or other minority groups, meeting inequality targets
	human resources	Impact on capacity, skill mix, training
	physical resources	Quality of buildings, furnishings, equipment, food
	satisfaction	Adequate information, appropriate patient-focused, patient involvement
	sustainability	Likelihood of long term survival of the service

Following agreement by the Advisory Panel, the Working Group developed a weighting exercise to determine the relative importance of the criteria. Based on her prior knowledge of weighting and voting methods, the researcher presented the Working Group with various methods for eliciting criteria weights. The benefits of each were

considered by the Working Group who identified the allocation points method as straightforward and suitable for the exercise (Clark, 1974, Mullen and Spurgeon, 2000). This technique was used to elicit the number of points that respondents would be willing to spend across each of the criteria. The total number of points was fixed and chosen to allow respondents to distribute them equally across the criteria if they so wished.

The allocation of points exercise was completed by the Stakeholder Group in order to engage with and capture the values of clinicians and other stakeholders. Responses were collected through a simple questionnaire format (Appendix J). PEC Chairs were asked to distribute the weighting questionnaire by email or hardcopy to their members (the Stakeholders). Returned questionnaires were identified only by the PEC name and entered anonymously into a database by the Working Group to calculate the relative weights of the criteria. Twenty completed questionnaires were returned from two of the PECs (about a 50% response rate). However, one PEC failed to return any questionnaires following a breakdown in communication between the Consortium and the PCT of the PEC concerned (this is discussed further in the observations results in Chapter 6, 6.2.5).

The results of the weighting exercise are shown in Table 5.4. The second column of this table shows the average number of points (out of 100) allocated by respondents to each of the benefit criteria and how those points were distributed between the sub-criteria. The number of points allocated to each of the criteria directly reflects the weight of that criterion (i.e. the level of importance attached to that criterion). In terms of the criteria

therefore, the most important criterion is that of quality of life, followed by policy and strategy, quality of service, and feasibility (these rankings are illustrated in the final column of the table). In order to ascertain the weights (and thus level of importance) of each of the sub-criteria, the number points distributed to the sub-criteria are adjusted according to the weight of the main criteria with which they are associated (e.g. the weight for the sub-criterion 'local objectives' = the number of points allocated to the sub-criterion 'local objectives' * the number of points allocated to the main criterion 'policy and strategy'). These weights (presented as a %) and the associated ranking are illustrated in columns 3 and 4 of the table.

Table 5.4 Stakeholder criteria weightings

	Benefit criteria	Average points allocated out of 100 (within each heading, out of 100)	Standardised weight (%)	Ranking
1.	**Policy and strategy**	**28.33**		**2**
	local objectives	(38.89)	**11.02**	**1**
	national objectives	(31.94)	**9.05**	**3**
	local support	(29.17)	**8.26**	**4**
2.	**Feasibility**	**18.75**		**4**
	affordability	(57.78)	**10.83**	**2**
	implementation	(42.22)	**7.92**	**6**
3.	**Quality of life**	**31.25**		**1**
	life expectancy	(16.36)	**5.11**	**8**
	physical well-being	(25.45)	**7.95**	**5**
	mental well-being	(25.45)	**7.95**	**5**
	social well being	(18.18)	**5.68**	**7**
	life circumstances	(14.55)	**4.55**	**10**
4.	**Quality of service**	**21.67**		**3**
	accessibility	(18.88)	**4.09**	**12**
	equity	(22.38)	**4.85**	**9**
	hr	(13.99)	**3.03**	**13**
	physical resources	(12.59)	**2.73**	**14**
	satisfaction	(20.28)	**4.39**	**11**
	sustainability	(11.89)	**2.58**	**15**

5.3.5 Stage 5: identifying and assessing options for investment, disinvestment and redesign

The Commissioning Consortium Directors and Heads of Service were charged with the responsibility of identifying options for investment, disinvestment, and redesign, and assessing them. In order to aid the identification of options, a 'Fact Pack' of potentially useful information gathered from work undertaken as part of this exercise (such as the programme budget data) and readily available local and national data, was compiled by the Working Group. This included: the Consortium programme budget data; Consortium performance information on all healthcare commission and LDP targets; local epidemiological and health needs assessments, and DPH reports; local and national priorities and planning guidance (e.g. NSFs); and national evidence and guidelines (e.g. NICE guidelines). The Fact Pack was made available electronically to all senior managers within the Consortium. In addition to the Fact Pack, a workshop was held with the Heads of Service during one of their regular organisational monthly meetings. At this workshop the DPH introduced the contents of the Fact Pack and the process for identifying and submitting options for investment, disinvestment, and redesign.

In order to identify options, Directors and Heads of Service were advised to use the information contained in the Fact Pack to reflect on their portfolio of services. Specifically they were asked to consider the following question: *"Are we spending more or less on certain services in my portfolio for the activity achieved than I would expect, based on current performance, stated priorities, compared with other trusts, or based on what I know about these services?"* From this, Directors and Heads of Service had to identify services from within their portfolio (stream of care) that they felt either

required potential investment, disinvestment, or redesign in order to improve efficiency, improve performance, better meet health needs, or fit with national and local priorities and targets. As suggested above, Heads of Service were encouraged to use the information contained within the Fact Pack including the programme budget, local epidemiological information, and national guidance to decide where service improvements should be made and whether any potential areas for disinvestments could be used to help achieve the service improvements. In some cases, Heads of Service consulted with clinical providers through established networks in order to gauge their input in identifying potential investments and redesigns, though this was by no means the norm. For the most part, Heads of Service tended to rely on the performance assessment targets to establish where targets were not being achieved and identify investments to tackle this. This way of identifying investments within the PBMA process is discussed further in Chapter 6.

All options (either for investments, disinvestment, or redesign) were submitted in the form of business cases. A standard business case template was developed by the researcher and DPH, and included in the Fact Pack (Appendix K). This was based on those used in previous PBMA exercises and refined through input from the Advisory Panel. The business cases were authored by the Directors and Heads of Service who were asked to obtain input from service providers where possible. As well as an outline of the current service option and proposed changes to the service, the authors had to provide information on the costs and benefits of the proposed changes (investment, disinvestment, or redesign) in the business case. Costs included the additional (marginal) costs incurred or saved by the proposed change and were estimated for 2005/6 and 2006/7 and broken down into capital and revenue costs where appropriate.

Benefits were defined in line with the local benefit criteria identified in 5.3.4. The benefits were estimated in terms of the additional (marginal) benefits that would be gained or lost by the proposed change using the 16 criteria identified above (Table 5.3). The impact of the proposed change on each of the benefit criteria was rated by the authors on a scale from - 4 (a very large negative impact or loss of benefit) to + 4 (a very large positive impact or gain in benefit). In addition, authors had to provide the relevant supporting evidence for the proposed change to justify the benefit ratings (e.g. by reference to policy documents, targets, NICE guidance etc) and estimate the numbers of people who were likely to benefit from the proposed change.

The submission of business cases was reviewed by the Advisory Panel and a lunchtime workshop was held with the Heads of Service to maintain momentum over submissions. The workshop was used to inform Heads of Service of the progress made on the PBMA process and their input into the process, and allow Heads of Service the opportunity to share information with their peers about their experience of the process and raise any problems that they had encountered. Completed business cases were submitted to the Working Group and each was attributed an ID number. Following the workshop, a total of 12 business cases were generated for developments, spanning 2 or 3 PCTs across the Consortium, and a further 48 business cases were generated for the PCT alone (the PCT primary care business cases). The majority of business cases were resource investment options, with only one disinvestment proposal. The lack of disinvestments was not surprising given knowledge of previous PBMA exercises which have struggled to identify disinvestments. Possible reasons for the lack of disinvestments in this exercise are further explored in Chapter 6 and discussed in Chapter 7.

Each of the business cases were considered by the Advisory Panel and sub-panel with the aim of screening ('weeding') out any business cases before subjecting them to detailed scrutiny. The 'weeding out' of options took place over the course of two Advisory Panel meetings (one for the Consortium business cases and one for the single PCT primary care business cases). During the course of these meetings each business case was reviewed in terms of the proposed change, to check the costs, and decide whether it should be considered in the next stage, following revision, or not be considered any further. A total of 30 business cases were screened out by the Panel on the following grounds:

- Elements of the business cases were duplicated in other business cases;
- They could be re-considered in 2005 for 2006/7 (i.e. they were not considered to be 'urgent' enough to be considered in this funding round);
- They could be picked up through other sources of funding (e.g. through future funding streams or ring-fenced funding);
- They could be mainstreamed from existing service budgets (e.g. as part of in-service costs);
- They involved other agencies and therefore had to be considered separately;
- More appropriate funding alternatives could be identified elsewhere (e.g. through the Local Authority's education budget);
- They required very small amounts of money and therefore a decision was taken to fund them outside of the PBMA process.

Some of these reasons may be viewed as simply deferring the process of decision-making, something which is elaborated upon in the following chapter. Data on the business cases that were retained in the process were entered into a spreadsheet by the Working Group. Heads of Service, at the request of their Directors, were instructed to visit the spreadsheet to submit any data that was missing.

Following this, the Advisory Panel and sub-group met to review the remaining business cases, Consortium, and single PCT primary care business cases respectively, in detail. The meeting was structured as a half day in-house 'away-day' – i.e. attendees were in theory out of the office and unavailable, but were on-site and able to deal with emails and any arising matters during breaks. Being on-site also reduced the travel time. thereby optimising the length of the meeting time.

The first half of the meeting was given over to the Consortium business cases whilst the single PCT primary care business cases were discussed in the latter half. All members of the Advisory Panel were present and the DPH chaired the meeting. Panel members assessed the business case proposals in turn, discussing the nature of the proposal, the ratings attributed to the benefit criteria by the author, and the costs involved. In some cases there was disagreement between the author's criteria benefit ratings outlined in the business case and the views of the panel. In these cases, members of the panel put forward a case for altering the benefit ratings and, on the suggestion of the DPH, each member of the Advisory Panel voted on the revised benefit ratings, abiding by the majority rule. As a result many of the original benefit ratings were revised by the Advisory Panel following this debate. Within this process, a further five business cases were screened out for the same reasons outlined above. For transparency, changes made to the business cases (such as changes in the benefit ratings) and the reasons for the changes were recorded directly into the business case database by the researcher. All changes were verified with those present.

Finally, following the Advisory Panel meeting, PEC members, in their capacity as the Stakeholder Group, were invited to review any aspect of the business cases but to focus in particular on the benefit ratings. Each member of the Stakeholder Group received copies of the revised business cases by email from the Working Group. Responses from Stakeholders were documented or verbally communicated directly to the DPH. In a small number of cases, members of the Stakeholder Group recommended revising one or more of the business cases. The feedback from Stakeholder Group was collated by the Working Group and fed into the Advisory Panel to inform the final ranking of priorities.

5.3.6 Stage 6: making recommendations for investment, disinvestment, and redesign

The business cases were then ranked by the Advisory Panel in order to identify and make recommendations for potential investment, disinvestment, and redesign to inform the commissioning intentions for the LDP.

The process of ranking took place over two separate Advisory Panel meetings, with the Advisory Panel considering the Consortium-wide business cases, and the sub-panel considering the single PCT primary care business cases. In order to aid the ranking process, the researcher tabulated key information contained within the business cases to allow business cases to be compared with one another. Information included: a summary of the proposed change identified in the business case, the additional (marginal) costs incurred or saved by the proposed change (using 2006/7 costs where available), and the estimated annual number of beneficiaries (e.g. patients, carers,

residents). This information was provided within each of the business cases and thus was available at previous meetings but this was the first time this information was collated and explicitly compared across business cases.

To further aid the comparison of business cases, additional information including the marginal benefits and a benefit/cost ratio was calculated for each of the business cases. The additional (marginal) benefits gained or lost by the proposed change were estimated for each business case using Equation (1), Chapter 2, 2.3.3, to determine the weighted benefit score (using the benefit ratings determined by the Advisory Panel benefit ratings in 5.3.5 and the criteria weights elicited from the Stakeholder Group in 5.3.4, Table 5.4). Alternative weighted benefit scores were also estimated using, first, the benefit ratings revised by the Stakeholder Group in 5.3.5, and, second, by multiplying the benefits by the potential number of beneficiaries stated in the business case. Furthermore, for each business case, a benefit to cost ratio was calculated by dividing the marginal benefit (the weighted benefit score) by the marginal cost, to give the benefit per £ spent. In total 3 different benefit/cost ratios were presented: 1, using the weighted benefit score calculated from the Advisory Panel benefit ratings and the Stakeholder Group criteria weights; 2, using the weighted benefit score calculated from the benefit ratings revised by the Stakeholder Group and the Stakeholder Group criteria weights; and 3, using the weighted benefit score from the Advisory Panel ratings multiplied by the number of beneficiaries and the Stakeholder Group criteria weights.

Business cases were ranked in a number of different ways based on this information. Each was ranked using the weighted benefit score (the higher the benefit score, the

higher the ranking of the business case) and also the 3 benefit/cost ratios outlined above (the higher the benefit/cost ratio, the higher the ranking of the business case). The inclusion of Stakeholder feedback in the benefit/cost ratio did not affect the final rankings of the business cases. However, the inclusion of the number of beneficiaries did have a significant impact upon the order of the ranking of business cases, altering the ranking by 4 places in 4 cases, and up to 10 places in one case.

The above information (including the marginal costs, the number of beneficiaries, the weighted benefit score, the cost/benefit ratios, and the rankings) was presented at the meetings by the researcher electronically, using a laptop and overhead projection facilities to enable easy comparison of the business cases. The rankings of the business cases were discussed by the Panel and sub-panel and any proposed amendments to scores or rankings were incorporated in real-time and revised in-situ so that the impact of these changes could be observed. Not much emphasis was placed on the benefit/cost rankings (however calculated) at either of these meetings. The Advisory Panel decided to recommend all of the Consortium business cases for funding in the LDP, whereas the sub-panel (assessing the PCT primary care business cases) excluded three business cases and agreed to recommend those remaining for funding in the LDP. The excluded business cases did not rank lowest in terms of benefit/cost ratio, though they consistently had the lowest weighted benefit scores. Using examples of business cases from the PBMA exercise, Table 5.5, provides a condensed version of the information that was presented to the Advisory Panel and the subsequent decisions taken by the Advisory Panel.

Following this meeting it was also revealed that the initial deficit estimated by the Consortium (of £19 million) had since been revised downwards and that the investments that resulted from the PBMA exercise could be carried 'in-year' by the Consortia PCTs. The effect of this on the PBMA process is discussed further in Chapter 6, 6.2.8, and Chapter 7.

5.3.7 Stage 7: performing validity checks and final decision to inform budget planning process

Following the previous meetings, the Working Group compiled an interim report detailing the process and outcomes. The report was distributed to the three PCTs that made up the Consortium. Each PCT considered separately whether and how to include the business cases in their individual PCT LDPs which were subsequently put forward to the SHA. Although it is difficult to make a direct link between the consortium-wide priorities that emerged from the PBMA process and the priorities identified in the three PCT LDP documents, most of the priorities identified in the PBMA process were defined in some form in all of the LDPs. Not surprisingly, the PCT that shared its management team with that of the Consortium showed a clear link between the PBMA priorities and the PCT priorities identified in the LDP. It is impossible to determine the extent to which the PBMA process influenced the final choice of LDP priorities and to what extent the same priorities would have emerged in the absence of a PBMA process.

In addition, a copy of the interim report was sent to all Heads of Service in order to obtain their feedback on the outcomes of the process, focussing on what had happened to their specific business cases. Finally, once the LDP was finalised, a regional

conference on the PBMA exercise was organised by the DPH and Researcher, with input from the SHA, to promote the results and discuss the plausibility of future PBMA activity.

5.4 Chapter summary

This chapter described the results of the implementation of PBMA in Phase II of the PAR. The PBMA was applied within the Commissioning Consortium which, as a new organisation, was responsible for commissioning secondary care on behalf of three PCTs that belonged to the consortia. The organisation was trying to manage a deficit at the time of the research and was interested in applying PBMA to identify the future commissioning intentions of the Consortium. The PBMA exercise was developed and implemented within the Consortium by the researcher along with decision-makers and stakeholders.

The aim and objectives of the PBMA exercise were to define the commissioning intentions for LDP process, map current resource expenditure across the Consortium; generate service proposals for potential investment, disinvestment, or redesign; develop and agree organisation-wide weighted criteria for judging proposals; and prioritise service proposals to meet national and local targets. As a starting point, a programme budget was compiled by the researcher to provide an overall picture of resource expenditure across the different healthcare programmes of the Consortium. In addition, a Working Group, an Advisory Panel, and a Stakeholder Group were formed to undertake and steer the PBMA exercise.

In order to guide decision-making, a set of local benefit criteria were derived and weighted to determine their relative importance. The Commissioning Consortium Directors and Heads of Service were responsible for identifying options for investment. disinvestment, and redesign, using the Fact Pack to decide where service improvements should be made and whether any potential areas for disinvestments could be used to help achieve the service improvements. All options were submitted as business cases which outlined the current service option and proposed changes to the service, and the costs and benefits (in line with benefit criteria) of the proposed changes.

60 business cases were submitted. These initial business cases were screened and 30 rejected for several reasons including that they could be picked up through other sources of funding or that they involved other agencies and therefore had to be considered separately. The remaining business cases were assessed in detail by the Advisory Panel and changes to the business cases (including the revision of benefit criteria ratings) were made as necessary. A further 5 business cases were rejected at this stage. Following this, the Stakeholder Group reviewed the business cases separately and their feedback was used to inform the final ranking of priorities.

The business cases were then ranked in order to inform the commissioning intentions for the LDP process. Business cases were ranked using information on the marginal costs and marginal benefits contained within each of the business cases to calculate a weighted benefit score and benefit/cost ratio. Not much emphasis was placed on the benefit/cost rankings (however calculated) and all business cases (except three) were recommended for funding in the LDP process. Although it is difficult to make a direct

link between priorities that emerged from the PBMA process and the priorities identified in the LDP, most of the priorities identified in the PBMA process were defined in some form in all of the PCT LDPs. However, it is impossible to determine the extent to which the PBMA process influenced the final choice of LDP priorities and to what extent the same priorities would have emerged in the absence of a PBMA process.

The following chapter presents the results of the observation of the implementation of PBMA described here.

Table 5.5 Example of business cases from the PBMA exercise

Service Area	Area	Marginal Cost (£)	Marginal Benefit (weighted benefit score)	No. of patients or beneficiaries	B/C Ratio*1000 (incl. beneficiary numbers)	Rank	Panel Decision
ENT	Consortium	0.0	1.8	4000	∞	1	Recommended for funding in all LDPs
Early Intervention in Psychosis	2 PCTs	250,000	1.6	60	0.38	16	Recommended for funding in 2 LDPs
Digital Hearing Aids	Consortium	129,360	1.57	8500	103	7	Recommended for funding in all LDPs
Diabetes Service	Single PCT	19,390	1.5	9000	696	3	Recommended for funding in single PCT LDP
Speech and Language Service for children and young people	Single PCT	38,000	0.65	50	0.86	13	Disagreement over who should fund – not recommended
Disposable Equipment for disabled children	Single PCT	Removed from process on basis that it should be picked up through other sources of funding					
Children and Young Peoples Coordinator	Single PCT	Removed from process on basis that it was a small amount of money and the costs should be met from within Commissioning Consortium					
Public Health White Paper Priorities	Single PCT	Removed on the basis that several key elements were covered by other business cases; others will be funded from 'spearhead' funds arising from the white paper					

Chapter 6 Observations during and reflections following the implementation of PBMA – results from the analysis of the observations in PAR Phase II and focus groups in PAR Phase III

6.1 Chapter overview

The second phase of the PAR involved both acting and observing a change. The previous Chapter, Chapter 5 presented the results from the first part of this phase, describing the application of the action (PBMA) as it was implemented within a commissioning organisation (the Commissioning Consortium). This chapter reports the results from the second part of this phase – the observation. Ethnographic approaches were used to observe and record the introduction, application, and development of PBMA with respect to the organisational context, organisational dynamics, participation and motivation, and to identify potential challenges to implementation. The results draw on an analysis of themes of the observational field notes in order to build an account of how PBMA was applied, how it was received, and how it was adapted. In addition, this chapter presents the results from the third phase of the PAR – reflecting on a change. In this phase, focus groups were used to reflect on the implementation of PBMA. As above, the results draw on an analysis of themes from the focus group transcripts to identify potential barriers and facilitators in the implementation of PBMA.

The chapter is organised as follows. The following section (6.2) presents the results from the analysis of the observation and the third section, (6.3) presents the results from the analysis of the focus groups. Collectively, the themes from both the observation of the application of PBMA and the focus group reflections on PBMA were used to revise

the schematic model of commissioning presented in Chapter 4, Figure 4.2 and inform the development of a refined model illustrating the role of PBMA in the commissioning process. The refined model, Figure 6.1, is presented in section 6.4.

6.2 Observation of the implementation of PBMA

The observation of the implementation of PBMA was primarily structured around specific events and meetings that took place during the course of the PBMA exercise as described in Chapter 5 (Table 5.2). In most cases observations were gathered directly by the researcher. However, where the researcher's attendance of meetings was restricted, the observations of informants who were present were elicited through interview by the researcher following these meetings. As described in Chapter 5, Section 5.2.1, these interviews were informal. Although verbal consent was obtained to record the interviews as part of the observation field notes, the interviews were not electronically recorded or transcribed.

The period of observation covered the full duration of the PBMA exercise (7 months) as described in Chapter 5 and represented in Figure (5.2). Observations were recorded as field notes in the research diary and documented events and interactions in day-to-day settings, in meetings (both formal and informal), and personal communication between the researcher and other participants. The field notes were subject to an analysis of themes as detailed in Chapter 3, Section 3.6.2, and key concepts emerging from the data were identified and used to build a description of what was observed.

The key themes that emerged from this analysis are presented here. The themes, aside from the first, are concerned with the context in which this PBMA exercise was applied rather than the technical application of PBMA per se. Extracts from the field notes are used to illustrate the themes. Extracts taken directly from letters, documents, conversations or interviews recorded in the field notes are quoted verbatim where stated. In some cases interviews or conversations were not recorded in the field notes at the time. In these circumstances, although the interview or conversation was observed directly, the extract is not presented as verbatim but in the context of how it was later recorded in the field notes. Where conversations were not directly observed this is stated. Otherwise, extracts represent observations as they occurred and were recorded in the field notes.

6.2.1 Conceptual and methodological understanding of PBMA

Participants' understanding of the PBMA process and the underlying conceptual basis differed between the hierarchies in the organisation. Despite having held an introductory session on PBMA at the Heads of Service away day at the beginning of the process, it was not until later on, where Heads were asked to develop the business cases for investment, disinvestment, and redesign in Stage 5, that it became evident that the Heads were "struggling" with the process as noted in the extract below. As such, the Heads required on-going training in order to develop their understanding of PBMA which resulted in the development of a lunch-time support session for the Heads of Service together with the creation of the Fact Pack.

[In a letter from the Performance Director to the Finance Director and the DPH]

"I think a few people are struggling with this. I will pick up with [the DPH] but think we need to take stock of issues and probably re-issue an idiot's guide to PBMA and the PB bit."

(Taken verbatim from the letter recorded in Field notes, 16/11/04)

On the other hand, the Directors had a clearer understanding of the PBMA process and the underlying economic concepts. This was particularly evident when it came to Stages 5 and 6 of the PBMA process where Directors, in their role as members of the Advisory Panel, were responsible for reviewing the business cases for prioritisation. In the following extracts members of the Advisory Panel demonstrate their understanding of the PBMA process and concepts through their interrogation of the business cases:

[Observation of an Advisory Panel Meeting]

Advisory Panel members are asking questions about the effectiveness of current services, current ways that the money is spent in a specific area and for which there may be an alternative business case.

(Field notes, 13/12/04)

[Observation of an Advisory Panel Meeting]

There is a lot of discussion about business cases and all speak and debate and question the assumptions of the business cases.

(Field notes, 16/12/04)

Nevertheless, Directors did encounter methodological problems with PBMA. In particular two aspects were noted.

First, the Advisory Panel found it difficult to make comparisons of business cases outlining a health promotion or prevention activity (public health) with business cases that detailed a service delivery activity. In particular the Advisory Panel noted that with

public health activities it was difficult to determine when the benefits from public health activities were likely to be realised and who would benefit:

> *There seemed to be some difficulty in making judgements between two predominant types of business cases. Those which supported or improved process (i.e. support a process which will enable other things to be delivered down the line which can't be quantified yet e.g. enabling communities to make healthy choices, health promotion and prevention activities) and those business cases that improved/support service delivery.*
>
> *(Field notes, 13/12/04)*

Decisions to prioritise such activities for investment were therefore considered to be more risky than the health service delivery activities that have quantifiable benefits and where the results of investment are evident in a short time frame.

In addition, this issue was amplified by the introduction of information on the number of potential beneficiaries in the business cases in Stage 5 of the PBMA process. In the main, business cases tended to present marginal benefit information in terms of the benefits accruing to an individual with the expectation that this would be multiplied by the number of potential beneficiaries to obtain the total marginal benefit for the business case. However, public health business cases that were directed toward the entire local population often identified this population as the total number of potential beneficiaries, whereas only a proportion of the population were likely to actually benefit, and therefore aggregating individual benefits to all the potential beneficiaries exaggerated the marginal benefit of such business cases. It was only when reviewing the business cases in the latter part of Stage 5 that this problem became evident and was raised by the Advisory Panel. At this stage the Advisory Panel began to question the robustness of the beneficiary information, particularly with respect to some of the public health business

cases where the numbers of beneficiaries were calculated on the basis of the *potential* numbers who *may* benefit as opposed to the *actual* numbers who *would* benefit.

The second aspect concerned the fact that the Advisory Panel struggled with the rating scale used to judge business cases against the benefit criteria to determine the marginal benefits. The rating scale consisted of an open scale ranging from -4 to +4, where +4 represented the greatest marginal positive impact on benefit and -4 the greatest marginal negative impact. The central (0) point was the only defined point on the scale, representing no marginal impact. The rating scale was initially completed by the Heads of Service, as the business case authors, as part of the business case submission and was later reviewed by the Advisory Panel in Stage 5 and amended if necessary. As a result of the lack of pre-defined values on the rating scale, the Advisory Panel tended to judge the business cases relative to one another and score them accordingly (as described in the extract below), rather than considering the merits of each relative to the benefit criteria:

> *Some started to rate business cases tactically suggesting "we need to score this one lower because it's worse than the one we have just scored."*
>
> *(Field notes, 16/12/04)*

6.2.2 Buy-in to the PBMA process

In management and decision-making, buy-in (as a noun or verb) tends to be used to signify the commitment of interested or affected parties (or stakeholders) to a decision, to buy-into the decision. In this case, the term buy-in is used to describe the commitment of those involved in the PBMA process to the PBMA process.

As above, commitment to the process appeared to differ between the hierarchies of the organisation and over time. At the beginning of the process, particularly in the first Advisory Panel meetings the Directors seemed unwilling to commit to the PBMA exercise, expressing this in their anxiety over the time frame of the exercise and in their questioning of the commitment of the CE:

> *[In conversation with the DPH following his attendance at the CEB meeting to introduce the PBMA project plan]*
>
> *"The impression I got was that there was one of disbelief by some members that we were expected to do all this in the time frame and they questioned whether the CE had really agreed to and understood what it all involved. The answer I gave was YES and others agreed saying 'you know [the CE] of course he would expect that'".*
>
> *(Verbatim quote recorded in Field Notes, 22/09/08)*

In contrast, the PEC Chairs, in their capacity as members of the Advisory Panel and the Heads of Service seemed more willing to commit to the process, though this was often described as being somewhat of a surprise both to those working on the PBMA exercise and themselves:

> *Today the DPH is upbeat and optimistic. He has had several successful meetings with the PEC chairs who have all bought into the process. I think he is surprised at how forward thinking and encouraging they are about the process. This enthusiasm (on the part of PCT and PEC colleagues) has also taken me by surprise as well. I have been prepared for many stumbling blocks.*
>
> *(Field Notes, 05/10/04)*

> *[At the Heads of Service Away Day]*
>
> *We presented the outline of the PBMA exercise which was well received. Some thoughts from those who were present included comments such as; "I'm getting quite excited about this – I didn't know I would get this excited about economics" and "I think the health service is ready for this".*
>
> *(Field Notes, 08/10/04)*

Indeed, some of the Heads of Service not only committed to the concept of PBMA and contributed to the process, but also became emotionally engaged with it. The extract below reports the observations of the Information Officer who describes the impact of such commitment on one Head of Service, who toward the end of the process, reported feeling responsible for the process and the outcomes of it:

> *[In conversation with the Information Officer]*
>
> *"[a Head of Service] is taking the process very seriously and appears to be very stressed and cheesed off with the whole thing. She feels very responsible for her business cases, that she'll get the blame if they are not funded. Others seem to be more relaxed but we need to acknowledge the effort that people have put in and that they will require feedback on the process."*
>
> *(Verbatim quote recorded in Field Notes, 01/12/04)*

Over the course of the exercise, there was a greater level of commitment from the Commissioning Directors as demonstrated through their regular attendance of and engagement in the Advisory Panel meetings. However, outside of these meetings, the absence of coordinated input into the PBMA process from the Directors, as reported in Section 6.2.7, demonstrates a lack of ongoing commitment to the process and engagement in the process beyond the minimum required. Similarly although both the Heads of Service and the PECs remained actively committed and engaged throughout the PBMA exercise, they expressed caution in committing to any future exercise:

> *[Comments from a Head of Service made at the Heads of time out session, as reported by the Information Officer who was present]*
>
> *My priorities are to achieve my targets in my areas [service areas for which Heads are responsible]. In an ideal world I would like to make the time to learn more about health economics, PBMA, and health policy, but my priorities are to do X first.*
>
> *(Field notes, 13/01/05)*

The PEC chairs reported that it had been difficult to carve out the time to meet in the PBMA process but that they welcomed something more objective like PBMA.

(Field notes, 20/01/05)

6.2.3 Control of decision-making and the PBMA process

Control over decision-making and the PBMA process lay with the CE and reflected his status and power in the organisation. Within the Commissioning Consortium, the CE adopted a 'hands-on', micro-management approach, overseeing and guiding a lot of the activity undertaken (particularly within the early days of the organisation). The extent of his control across the organisation is demonstrated the following extract:

[In a confidential letter that I had sight of]

The Chair of one of the Consortia PCTs wrote to the Consortium CE questioning the accountability of the Consortium Executive Board and requesting that the CEs of the Consortia PCTs to sit on the Board as well as the PEC Chairs.

[On speaking to the CE about this issue]

The CE stated that his reason for not wanting the other CEs on board is that he felt it would compromise his authority if there was disagreement at the meetings. He thinks that these disagreements should be (or are best) ironed out outside of these meetings.

(Field notes 12/10/04)

The control that the CE demonstrated in the organisation also spilled over into the PBMA exercise. As suggested above, this was inevitable given his position within the organisation. That the CE took on this role in the PBMA was therefore not necessarily a bad thing (as it would have been expected) and, as demonstrated later, the fact that the CE did have control over the PBMA process had some advantages. However, the CE's control over the PBMA process also meant that he had considerable influence over the direction of the PBMA process and thus the outcomes from it.

From the beginning, the CE was keen to establish ownership over the PBMA exercise and did so by asserting his authority over it, as exemplified in the following extracts:

> *The PECs seem to be doing a lot of prioritisation work ... we should fit into/tap into PECs for criteria weights. Though, in a conversation held in my office between the DPH and the CE, the CE's take on explicit criteria weighting was:*
>
> *CE "do you mean the unofficial weights or the official ones? Who is the accountable officer?"*
>
> *DPH: "you"*
>
> *CE: "who makes the final decision as to how we spend millions and millions of pounds?"*
>
> *DPH "you" [conversation ends]*
>
> *(Verbatim quote recorded in Field notes, 14/09/04)*

> *[In conversation with the DPH]*
>
> *The DPH told me he had been "bollocked" by the CE on the previous evening. He explained that having finished the work plan he had (in the absence of being able to meet with the CE before his holiday) pinned the work plan to the wall of his office. Apparently he [the CE] had come in, seen it, and torn it down. His secretary had told him that the DPH wanted to meet with him urgently and he had "stormed" into the DPH's office and said 'you don't tell me what my priorities are, they are for me to decide' to which the DPH responded that he needed his approval to sign off the workplan. The CE said he would sort it out when he returned from holiday. The DPH explained however that we would not be able to deliver on time as 40% of the work is due to be completed by the time he comes back from holiday anyway. The CE said that this would present him with a real problem and he would call the DPH tomorrow night. The DPH commented that "I saw a different side to him last night!!".*
>
> *(Field notes, 16/09/04)*

During the PBMA process, the CE maintained control by chairing the Advisory Panel, a responsibility he handed over to the DPH on only one occasion.

The level of control exerted by the CE influenced the extent to which the Consortia PCTs were able and willing to engage with and commit to the PBMA exercise (as

indicated in the earlier extract above, and in Section 6.2.5). Additionally, the control over the PBMA process demonstrated by the CE together with his authority (as the CE) meant that the organisation tended to rely on him to make decisions about the exercise and, at times, was unwilling to agree to decisions in his absence. At the beginning of the exercise the CE was on annual leave for two weeks and, as a result, Directors within the organisation were unwilling to commit to the PBMA process as there was concern that the CE had not seen or approved the exercise (6.2.2). Moreover, the level of control exerted by the CE was such that there were rumours within the organisation that the CE had been able to influence or manipulate the PBMA exercise and hence the results:

> *[Speaking to the Information Officer who was present at the Heads of Service time out session]*
>
> *She mentioned that during the session there was some discussion between heads about a rumour - that at the beginning of the PBMA process the Director of Commissioning and the CE had put what they felt would be the priorities and needs for investment into a sealed envelope and that it's these things that seem to have come out top in the PBMA rankings. The DPH had said that this showed that the process was good as it reflected the 'real' decisions that would be made (i.e. captured all that was important). However [the information officer] was worried that it could be that these powerful people [the Director of Commissioning and the CE] could have influenced the process in terms of their own preferences.*
>
> *(Field notes, 13/01/05)*

On the other hand, the CE's control of the exercise also presented some advantages, particularly with regards to facilitating the exercise. Given his level of control over the exercise, the CE ensured that the exercise was approved by the organisation and raised the profile of PBMA within the organisation to encourage engagement from within the organisation (if not from outside). Additionally, the CE was actively involved in the exercise through his role in the Advisory Panel and was able to maintain momentum for engagement throughout the exercise:

Most of the organisation seems to be well engaged with the exercise. I believe (through a conversation with the DPH) that this is mostly the CE's influence i.e. he has told them to do this and make it a priority.

(Field notes, 01/12/04)

6.2.4 Leadership of the PBMA process

Although the CE exerted control over the PBMA process he did not lead it. For the most part, the day to day work of the PBMA exercise was conducted by the Working Group formed from the Directorate of Public Health, often in isolation of other activities and Directorates within the Consortium. This isolated and fragmented way of working is discussed further in Section 6.2.7, and was not unusual within the Consortium. However, this meant that responsibility for the PBMA exercise became invested in the Working Group (two members of which were not fulltime employees of the Consortium – the researcher and the Public Health Trainee), and specifically the DPH, as the line manager of this group. This responsibility was formally embedded through the addition of the PBMA exercise to the DPH's work objectives. As such, the DPH had sole responsibility for leading the PBMA exercise, though little control which, as discussed above, was exerted by the CE. The DPH seemed to be acutely aware of this level of responsibility, expressing this in terms of the pressure on him to successfully deliver the PBMA:

The DPH is worried today that it [the PBMA] won't work. He is concerned with perfection. I keep stressing that it is not aimed to be a 'Rolls Royce' PBMA this time around.

(Field notes, 15/09/04)

Furthermore, investing responsibility for leading the exercise in the work objectives of one person meant that no other Directors or Directorates had any formal obligations to provide input into and maintain the PBMA process, and there was no explicit link

between the PBMA process and the organisational objectives. The implications of which were twofold.

First, when the DPH took annual leave – a routine and reasonable thing for anyone to do – it disrupted and delayed the PBMA process. As illustrated in the extract below, when the DPH went on holiday over Christmas, the Consortium was unable to continue the PBMA exercise in his absence without a detailed action plan and programme:

> *[Email sent from the CE to the DPH, cc researcher]*
>
> *"Further to the meeting yesterday and your concluding summary of what needs to be done urgently over the next weeks, the meeting of Directors and [the PEC Chair] this morning expressed concern to me that there was a lot to be done in a short period of time and many were unaware that you were not going to be around for the next 2 weeks. My response to them was I assumed that you would be directing your team to carry out the agreed actions and that they/you would be issuing a programme to us all over the next 24 hours setting out key dates and events. ... It would therefore be helpful please if you could email us all setting out the action you have put into train during your leave, including the production of a programme, within the next day or so."*
>
> *[Email response from DPH, cc researcher]*
>
> *"I'll come into work first thing tomorrow morning (Saturday) and leave a clear set of instructions for everybody on email and their desks. Both [the information office] and [the researcher] will be on hand but I will leave a detailed action plan tomorrow."*
>
> *(Taken verbatim from the emails recoded in the Field notes, 17/12/04)*

In contrast to when the CE went on annual leave (as discussed in 6.2.2), the DPH had to ensure that systems were put in place that would enable the PBMA process to continue. Indeed, because the objectives of the PBMA process were not aligned with anybody else involved in the process, they could not be relied upon to maintain the PBMA process without the micro-management of a detailed action plan. This extract also demonstrates the extent of fragmentation in the organisation, with some colleagues not

even aware that the DPH was going on annual leave. The theme of fragmentation is further explored below in Section 6.2.7.

The second implication was that investing the objectives of the PBMA process in one person and charging them with leading the process, meant that participants were unable to separate the person from the process and, overtime, the process became synonymous with the person leading it (in this case the DPH). As a result, the DPH became the target for any problems that were associated with the process. Specifically, the extract below illustrates an instance where the DPH's character was being blamed for problems encountered in the PBMA process:

> *[In conversations with Heads of Service]*
>
> *They think that the DPH is patronising and that any future PBMA process should be led by someone else; that he doesn't understand the NHS situation and is not realistic enough; and that he doesn't know how to talk to people or clinicians. I am worried because if this is how he is perceived I don't want a barrier to introducing PBMA into the organisation to be [the DPH] himself who is supposed to be an advocate of PBMA.*
>
> *(Field notes, 20/01/05)*

6.2.5 Conflict affecting the PBMA process

Politics, (with a small 'p') and power struggles between the Consortium and the local health economy (particularly the other Consortia PCTs) were evident from the start of the PBMA exercise. At one of the first Advisory Panel meetings a lot of discussion centred on the need to obtain buy-in or commitment from the Consortia PCTs for specific tasks in the PBMA process. This is illustrated in the extract below:

The Advisory Panel met to introduce the criteria ... they did stress that we need to run these by the other two PCTs, stressing that we need buy-in from the other PCTs. This seems strange to me and highlights sensitivities of the role and remit of the consortium. The nature and existence of the Consortium is still confusing to me. If it is established and it is agreed that it will commission secondary care for [the local health economy] then why do we have to run these [the criteria] by the other PCTs. Surely they leave it to the Consortium OR the Consortium should engage with them?!

(Field notes, 30/09/04)

Given that the Consortia PCTs were committed to the PBMA process, the need to continue to ensure their commitment highlighted the tension between the role of the Consortium and the role of the Consortia PCTs. The tension between roles is also raised in the following extracts:

> *[In a meeting with the CE of one of the Consortia PCTs]*
>
> *"The Consortia PCTs are paying into the Consortium but we do not feel like we belong to the Consortium or that the Consortium belongs to us."*
>
> *(Verbatim quote recorded in Field notes 22/12/04)*

> *[In conversation with a PEC Chair]*
>
> *"it is not clear who is doing the prioritisation, the Primary Care Organisations or the Consortium".*
>
> *(Verbatim quote recorded in Field notes, 12/10/04)*

Furthermore, given that senior staff in the Consortia PCTs were not visible at the executive level in the Consortium and consequently the groups that presided over the PBMA process (see Section 6.2.3), efforts to ensure the ongoing commitment of the Consortia PCTs seemed somewhat tokenistic and perhaps resulted in exacerbating tensions between the organisations.

Therefore the context within which the PBMA process was conducted was affected by an undercurrent of conflict between the Consortia PCTs and the Consortium. Although this conflict stemmed from the context rather than the PBMA process itself, the PBMA exercise was nevertheless influenced by it. In particular, because the PBMA exercise was primarily associated with the Consortium, it tended to be used by the Consortia PCTs as an instrument in the conflict, in order to assert their authority in the Consortium. This was manifested in two ways.

First, consultation with the Consortia PCT PECs had to be conducted through the respective PCTs. However, despite approval from the PEC Chairs for the Consortium to engage directly with their members, Directors of the Consortia PCTs tried to prevent or restrict such engagement by intervening in communications between the Consortium and the PECs. In one instance, described in the following extract, the Directors of one of the Consortia PCTs delayed the distribution of the criteria weighting exercise questionnaires in Stage 4 of the PBMA process to the PEC, citing concerns over the methods and relevance of the criteria that had already been approved by the CE of the PCT in question, as well as the Consortium and PEC representatives:

> *[Extract from letter sent to Consortium Commissioning Director from her counterpart in one of the Consortia PCTs]*
>
> *"this [the criteria weighting exercise] hasn't yet gone to our PEC as we had some questions about its scope and methodology which we felt needed more info before simply doing the exercise. I think it's a methodology for deciding on what the criteria should be, which it is being suggested should be used by each of the PCOs. However this doesn't mean that we will arrive at the same criteria ..."*
>
> *(Taken verbatim from the letter recorded in Field notes, 12/10/04)*

In this instance, as discussed in Chapter 5, the Consortia PCT in question failed to deliver and return the weighting questionnaires.

Second, the Directors of the Consortia PCTs were reluctant to share financial and activity data required for compiling the programme budget, often ignoring requests for meetings to collect this information, or withholding it from meetings. It was only after the researcher met with the CEs of the Consortia PCTs to bring this to their attention that the necessary data were released. The unwillingness of a Director of Finance to share such financial information is illustrated in the extract below:

> *[One of the Consortia PCTs] doesn't really want to share the Programme Budget returns outside of the areas that [the PCT Finance Director] thinks the Consortium are contracted to provide.*
>
> *(Field notes, 12/10/04)*

Additionally, the PBMA process also revealed the internal conflict that the Consortium faced in meeting national and local health service goals. At the start of the PBMA exercise, the focus for identifying services for potential investment, disinvestment and redesign was restricted to identifying service areas where the organisation was not meeting national performance targets and directing resources to these from efficiency savings or disinvestments in service areas where performance targets were already being met or areas of care that did not have associated performance targets. However, by the end of the exercise, investment decisions were made on the basis of other goals, not least as described in the following extract, to maintain relationships with key stakeholders and avert potential local political tensions:

> *The Medical Directors and PEC chair seem to be 'old school' and are aware of the wider issues and context around some of the business cases. They are politically sensitive stating for example: "we don't want to piss X off so lets consider it" and "we have made promises in the past and not delivered so we should keep it in the process".*
>
> *(Field notes, 13/12/04)*

6.2.6 Confidence in the PBMA process

Confidence in the PBMA process applied to both the conceptual basis of the PBMA process and the results of the PBMA process, and was in part related to the level of commitment participants demonstrated toward the process. The more confidence participants had in the PBMA process, the more likely they were to commit to it. This was evident in some of the extracts presented in 6.2.2.

In terms of confidence in the PBMA process a number of Directors, particularly those who had worked in the health service for a while and had often encountered 'new' methods, or had experience of working with academics, were initially sceptical. Lack of confidence in the PBMA process is demonstrated below by one Director who compares it to a process that was used in the past which had associated problems:

> *[Comments a Director during an Advisory Panel meeting]*
>
> *"Where we've done this before we've had no follow through and it has been difficult"*
>
> *(Filed notes, 08/10/04)*

However, during the course of the PBMA exercise, as the Directors, in their role as the Advisory Panel, became more familiar with the PBMA process, their confidence in the process seemed to increase. Indeed, such was their confidence in the process, that Directors were able to present the PBMA process and defend it to colleagues both within and outside of the organisation. This is evident in the following extract which shows the Medical Director supporting PBMA against the criticisms of the DPH. and then emphasising the importance of using the PBMA principles when reviewing the business cases in the latter stages (Stage 6) of the process:

[Advisory Panel meeting]

In a discussion over beneficiary numbers, the DPH describes this as "the Achilles heel of PBMA" the medical Director responds in humour that "it is a many footed beast though!", adding "but seriously I don't think it is though"

... Later in discussion over measuring current expenditure, the Medical Director took charge in reiterating the 'marginal effect' and the importance of focussing specifically on this.

(Field notes, 16/12/04)

In contrast, the Heads of Service did display confidence in the PBMA process and were thus committed to the process from the outset. In part this may have been explained by the fact that some of the Heads of Service were new to commissioning and PBMA seemed to offer a potential 'life-line', a tool that could provide the answer for the difficult decisions that have to be made in commissioning, rather than a framework for conducting commissioning (see the discussion on objectivity in Section 6.3.1). However, the confidence initially portrayed by the Heads of Service, seemed to wane towards the end of the process. This was related to the extent to which the Heads perceived their lack of involvement in the exercise which was essentially centred on the production of the business cases in Stage 5. Other than this, they were not involved in the Advisory Panel or Stakeholder Group, and the lack of coordination and communication in the Consortium (discussed below, Section 6.2.7) meant that the Heads of Service were unfamiliar with other aspects of the PBMA process and, despite having had an introduction to PBMA in the beginning, were not clear about how their input was used in the process:

[In conversation with a Head of Service]

[the Head of Service] said that she feels like she's not informing/influencing the planning process which in a Commissioning Consortium she finds a little worrying. She mentioned that she was very angry previously but has calmed down a bit now.

(Field notes, 11/01/05)

Furthermore, some Heads expressed concern that the results from the PBMA process were inevitable as they had been manipulated by the CE and other Directors within the Consortium (as discussed in Section 6.2.3), and therefore they could not be confident about the process or the results.

6.2.7 Coordination and fragmentation in the PBMA process

The separate Directorates that made up the Consortium tended to operate as isolated groups within the organisation, resulting in a fractured way of working that seemed to lack coordination and joined-up thinking. This is reflected in the extract below:

> *I started to realise that people aren't quite sure what information is available and who has what. There are many groups each of whom collect their own info and data – yet I'm not clear how this will relate to the PBMA or how we will be able to use it.*
>
> *(Field notes, 14/09/04)*

This way of working was also reflected in the PBMA exercise. As noted earlier, given that PBMA Working Group was made up of the Directorate of Public Health and the DPH was responsible for the PBMA process, the process was primarily associated with this Directorate. As exemplified in the following extract, the PBMA process was often viewed as an activity, a "discrete project", isolated in the Directorate of Public Health:

> *[In conversation with the public health trainee]*
>
> *He said he had the impression that PBMA was a low priority. In fact he said that he thought that the acute trusts valued it higher than inside the consortium. He also said that he thought that people saw this [the PBMA] as a few people working on a "discrete project" from which we're going to feed them some answers at the end of the day, rather than a framework that they needed to provide input to. This is probably because nobody has really given us any information up to now, nobody has come forward to give us any data, we have had to go out and search for it.*
>
> *(Field notes, 20/10/04)*

Furthermore, the extract above also illustrates the lack of coordinated input from other Directorates, in particular in providing information and data for the PBMA exercise. As exemplified in the extract below, this was explained by the fact that Directorates were all responsible for meeting their own objectives with which they were otherwise occupied:

> *[In conversation with the CE]*
>
> *"The PBMA is not on everybody's agenda. Only the Commissioning Director is responsible for the LDP. This is as much about managing people expectations as well as our own about what people can and can't contribute."*
>
> *(Verbatim quote as recoded in Field notes, 21/10/04)*

This is further highlighted in the following extract which portrays the extent to which the objectives of each of the Directorates were often pursued at the expense of any overarching organisational aims or objectives. Indeed, in this example, rather than create a joined-up approach by coordinating and involving different groups in achieving the objectives, it is proposed that a joined-up way of thinking can be imposed:

> *[In a meeting with the DPH]*
>
> *The DPH recounts a conversation he had with the Director of Commissioning who he described as saying "I've already decided what the rankings are, is this [obtaining rankings from the PECs] not an academic exercise? One of us has got to be at the PEC tomorrow because one of us has got to* ***tell*** *them what their rankings are." My impression is that everybody else is so busy doing their objectives that they are grateful that the LDP is someone else's first priority/objective. There is no joined up thinking even at Consortium Executive Board level because everybody is so busy. [emphasis added]*
>
> *(Field notes, 11/01/05)*

The lack of a joined-up approach presented a particular problem for the PBMA exercise, not least because of the problems in gathering inputs from the other Directorates, but more so because the Directorate responsible for the LDP process was, in achieving its own objectives, compiling the LDP also in isolation which meant that it was difficult to

coordinate the PBMA process with the LDP process. In the end the final stages of the PBMA process were simply used to inform the LDP process. As such, up until that point, the two processes appeared to exist in parallel to one another. This is partly reflected in the extract above and explicitly described by a PEC Chair and a Head of Service in the following extracts:

[In conversation a PEC chair]

"it feels that there is a general lack of coordination. The LDP is being prepared in isolation of the PBMA process and the financial situation."

(Field notes, 11/01/05)

[In conversation with a Head of Service]

"I have had the feeling that the two processes [the PBMA and the LDP] are co-existing and have been running separately."

(Field notes, 13/01/05)

In addition to being organisationally fragmented, the Consortium was also temporally discontinuous. Established in 2004, the Consortium was a relatively new organisation and the PBMA exercise began in parallel with it. The PCTs that formed the Consortium had only been in existence for two years prior to this and they and their predecessor organisations (primary care groups and, before that, health authorities) had been subject to several reconfigurations. As such, many of the staff involved in the PBMA exercise had been in post for less a month prior to the start of the exercise and therefore not only had to contend with learning to adapt to a new organisational culture, but also had to familiarise themselves with their services, and implement the PBMA exercise at the same time.

6.2.8 Deferral of decision-making and impact on the PBMA process

The ability to defer decision-making was encountered throughout the observation of the PBMA process. In the main, such deferral was subtle and intrinsically embedded in the organisational culture. In particular, a lot of time at the start of the PBMA processes seemed to be spent engaging in tactics like extensive debating and excessive planning which were used as diversions from the task of 'doing':

I returned to work at 6.00pm for the evening shift with the DPH! Met the PCT Chair, the CE, and the Director of Performance who were also working late but not as late as us! Everybody seems happy to stop and debate the issues but I just want to get on and finish!

(Field notes, 14/09/04)

So far we have just spent a lot of time brainstorming, cutting and sellotaping, and using highlighter pens! Is this what senior management do?!

(Field notes, 21/09/04)

Later in the process humour was also used in the Advisory Panel meetings. Given that these meetings involved reviewing the business cases and making decisions about the prioritisation of businesses cases for investment, it is conceivable that humour was used to divert attention away from the seriousness of the decisions that they faced in such meetings, to boost group morale or, perhaps, to prevent anybody from becoming too serious. This use of humour is portrayed below:

[PBMA Advisory Panel meeting]

Following a serious debate about the rating of some of the business cases, the DPH says "[the CE] is like the major in Fawlty Towers" [all laugh]. The tone of the rest of the meeting was generally pally, pally [very friendly and jokey]. There were a few comments on salaries, pay packets, P45s directed at fellow people around the table but it was all done in a jokey fashion (a bit 'old school boy tone')

(Field notes, 16/12/04)

In addition to these subtle diversionary tactics, more explicit approaches were also adopted to defer decision-making. In particular two approaches were adopted. First, decisions were often deferred on the basis that the quality of the data used to underpin decisions was poor. As a result, the responsibility for decisions rested with the data rather than those making the decisions or the organisation more broadly. This is highlighted in the following extract:

> *I now get the impression of how a small part of the organisation is working. It appears to be (on the surface) very busy/hectic and certainly there are a lot of demands to do things by certain dates. However there is also a lot of philosophising and discussion about what might happen if X were to be implemented. There are a lot of concerns about the implication of new policies, I guess rightly so because it will be their heads on the line if things don't go right. But paradoxically when you ask for the info that informs the decisions that they make it is always accompanied by verbal warnings about the accuracy of the data and assumptions used to 'fudge' [their words] the data and 'bring the data in line' [their words].*
>
> *(Field notes, 23/09/04)*

The second approach involved the use and presentation of financial and accounting data and information. Depending on how the figures were presented, the financial and accounting data revealed a different story of the financial state of the organisation and this influenced how decisions were made. This was evident in the final stages of the PBMA process when the CE announced that the original financial deficit had been revised downwards:

> *[In a catch up meeting with the DPH]*
>
> *The DPH stated that at a recent Consortium Executive Board meeting (12/01/05) that it was announced that the financial deficit of £19M had been revised since to around 671,000 (including uplift and payouts and pre-commitments etc) for the PCT. PBMA investments will only add to this deficit and they worked out that the PCT could carry an in year deficit of around £5M therefore they could afford to spend around £2M on PBMA list of investments without having to making any disinvestment.*
>
> *(Field notes, 19/01/05)*

As a result, despite the fact that the Consortium was still in deficit (though not to the same extent) and the original rhetoric of the Consortium to make efficiency savings that may have required disinvestments, the decision was made to allocate more resources to fund the PBMA investments. As such, by the end of the PBMA process no efficiency savings, either through service disinvestments or service redesign, were made and the Consortium instead invested more resources and the difficult decisions involved in making disinvestments were simply deferred to the following year.

The themes from observation of the application of the PBMA process were used to refine the commissioning process in the revised schematic model of commissioning discussed in Section 6.4.

6.3 Reflections on the implementation of PBMA

Reflections on the implementation of PBMA were gathered through focus groups with participants involved in the implementation of PBMA. Two focus groups were held for the Heads of Service (on 02 Feb 2005) and Directors (on 20 Jan 2005) respectively. In total six Heads of Service (out of a possible nine) and all five Directors (plus the CE and the PEC representatives (3)) attended the focus groups. The focus groups were used to evaluate PBMA from the perspective of the user and examine the strengths and weaknesses of the process. Each of the focus groups was electronically recorded and transcribed. The transcriptions were analysed using thematic analysis to identify specific challenges to implementing PBMA and suggestions for refinement of the process. The emergent themes are presented below using verbatim extracts from the focus groups to illustrate the arguments. The themes covered both the PBMA process

and the context within which the PBMA exercise was conducted. Notably, the Directors tended to focus on specific issues to do with the PBMA process, whereas the Heads of Service focussed on the context.

6.3.1 Process

Directors highlighted several challenges with the PBMA process. First, the funding arrangements between commissioners and providers did not offer any incentives for identifying disinvestments or efficiency savings along the entire care pathway. Specifically, Payment by Results (PbR), the tariff system used by the PCT to pay for a number of specified services provided within the secondary (acute) care sector, is a fixed tariff based on the average costs of providing these services. As a consequence, any potential efficiency savings identified for tariff-ed services were not going to be realised by the PCT (who would continue to pay for them on a fixed average price basis), but by the secondary (acute) care sector. This is presented in the following extract:

> *"Finding efficiency savings was hard in a diverse health economy i.e. efficiencies can be made in the acute sector but there is no control in commissioning over releasing those savings – we have to pay for PbR"*
>
> *(Advisory Panel Focus Group)*

Second, the benefit/cost ratio used to rank and prioritise business cases in Stage 6 of the PBMA process was not considered to be very useful. Indeed, members of the Advisory Panel agreed that they tended to focus on the weighted benefit score information to compare business cases and judge this alongside the cost data and any other relevant information (including, as described by a member of the Panel in the extract below, gut feelings), rather than rely exclusively on a single index measure:

"It seemed that the final rankings in the meeting were produced from a mix of gut feelings based more solely on the weighted benefit."

(Advisory Panel Focus Group)

As discussed in Chapter 5, Section 5.3.6, the 3 business cases that were not recommended for investment and inclusion in the LDP did not rank lowest according to the benefit/cost ratio but did consistently rank lowest on terms of the weighted benefit scores. The incorporation of cost, or indeed, marginal cost was still a difficult concept for the Advisory Panel to capture. Though they agreed that they did need to take marginal cost into account, the Advisory Panel felt that the ratio approach made the information on marginal costs and benefits less explicit and transparent.

Nevertheless, in general the PBMA method was considered an improvement over previously employed methods, providing greater transparency and a more robust and explicit approach to identifying and assessing decisions about the allocation of resources that was consistent with NHS objectives. Specifically, the development of explicit criteria as a method to assess the benefits of business cases was broadly welcomed. The use of criteria for weighting and scoring business cases provided a basis for deciding what was important when it came to judging the value of business cases and made such values explicit. These views are portrayed in the following extracts:

"It showed promise as a tool to be used in the future as we make more explicit decisions on prioritisation within streams and programmes. I would also be keen to see how we can link this approach with practice based commissioning."

(Advisory Panel Focus Group)

"The weighting and scoring help focus your mind on what you were trying to achieve from your services"

(Advisory Panel Focus Group)

Furthermore, together, the transparency and explicitness of PBMA was presented as offering an approach for defending commissioning decisions. As a member of the Advisory Panel noted:

> *"if we do want to choose to disinvest it [PBMA] provides a defensible process. If they [business cases for disinvestment from existing services] are considered within the full process then you can see how they rank against other investments."*
>
> *(Advisory Panel Focus Group)*

In contrast, however, the extent to which the PBMA process was objective was regarded negatively by some. In particular, Heads of Service seemed to express frustration that the PBMA process did not make the final decision for them, was subject to the influence of politics (so called *"must-dos"*) or individual biases, and did not negate the need for judgement. This is reflected in the two extracts below:

> *"... how did they make a non biased judgement because to my simplistic way of looking at it, if you look at the 18 things that have been ranked they are clearly the must-do's for the PCTs. Now, [...] if you've known that from the very beginning surely to God that was a complete waste of time for some people..."*
>
> *(Heads of Service Focus Group)*

> *"I have heard that what is happening now is that people are looking at the scores and saying 'well I really don't think that one should be higher than that one' and 'something must be wrong here' and it begs the question why on earth are we actually using this tool if when we get the results of it we're not actually going to take those results."*
>
> *(Heads of Service Focus Group)*

On the other hand, others argued that the PBMA process had to adapt to the political context that permeates commissioning, rather than try to replace it:

"I saw the two [the PBMA and the LDP] as linked but then, what I've said before, if there's a political imperative you'll do it whether it's top or bottom of the list, you've got the methodology there but there's always going to be an element of judgement."

(Heads of Service Focus Group)

"PBMA needs to cope with chaos in the future. Directives from the centre mean that things will always take us by surprise and mean we have to make investments."

(Advisory Panel Focus Group)

Additionally, some Heads suggested that in order for PBMA to adapt to the political context, it should be iteratively implemented, rather than be rejected for failing to achieve perfection:

> *"I think this was a first stab at it and I think the next time you do it you may change the parameters a little."*
>
> *(Heads of Service Focus Group)*

> *"it's more of an art than a science, actually prioritising because, yes you need the methodology but there's so many other parameters that you need to consider."*
>
> *(Heads of Service Focus Group)*

6.3.2 Time

The timeframe for the PBMA exercise was imposed by the organisation to mirror the commissioning cycle and the LDP process. The exercise was therefore conducted over a timescale of approximately 7 months. The time frame for the PBMA was considered by many of the Heads of Service to be too tight. Indeed as one Head of Service commented: *"the time frames were ridiculous" (Heads of Service Focus Group).* In particular, Heads focussed on the time frame for the production of business cases in Stage 5 of the PBMA process. At this stage Heads of Service were only given around

two weeks to identify, complete and submit business cases and were under pressure from their Directors to abide by this timescale. As a result of the short time frame, Heads were concerned that they did not do the PBMA 'properly' and such, it had failed. These views are evident in the following extracts:

> *"Most of the business cases were designed around developments to meet service targets rather than developing new services or disinvesting in services and I think given the time lines it would have been foolish for us to do that."*
>
> *(Heads of Service Focus Group)*

> *"I am not saying that PBMA in itself is a waste of time, I am saying that what we did in my view wasn't PBMA ...where was the re-channelling of money from this to service to that service that was going to make a difference? It didn't happen and it couldn't happen in the time scales."*
>
> *(Heads of Service Focus Group)*

In contrast, some Heads reasoned that the timescales or workload in the PBMA were not different to the usual process that they would have undertaken in the absence of PBMA:

> *"I don't think it was any more onerous than a normal business planning cycle [...]. I don't know whether it was any more useful ..."*
>
> *(Heads of Service Focus Group)*

> *"I think I would have to do the same process regardless, you know in terms of the business cases anyway."*
>
> *(Heads of Service Focus Group)*

6.3.3 Engagement and collaboration

Engagement within the organisation was conducted through the existing line-management routes which meant that overall the exercise was conducted from the top-down. Bottom up engagement within the PBMA process was restricted to the PEC members who were involved as proxies to represent clinicians and stakeholders as the

Stakeholder Group. However. the lack of direct engagement with clinicians or other service providers was identified as a particular problem for the Heads of Service where institutional boundaries were likely to have impacted on their ability to make real resource shifts between acute and community services for example. Additionally, it was argued that the implementation of commissioning intentions required the active participation of those at the frontline of service provision. This is expressed in the following extract:

> *"the whole exercise this time was entirely subjective because we all wrote our business cases from our own perspective. And, for my service, really what should have happened is that they should have been written in collaboration with the provider organisations because, I could have written what I thought was needed but, it could have been a million miles away from the truth"*
>
> *(Heads of Service Focus Group)*

As a result, the Heads of Service were concerned that the exercise simply reinforced past commissioning processes and alienated providers from commissioning:

> *" we have got multi-disciplinary, multiagency groups that we meet with but, we meet with them maybe say quarterly, and when you have an exercise like this, with tight deadlines, we have to make the excuse to them again that 'it would have been good to liaise with you and consult with you but we didn't have the time'"*
>
> *(Heads of Service Focus Group)*

In contrast however, Heads of Service did not present themselves as willing collaborators to providers or Consortium colleagues. Indeed many often referred to services and resources as 'my' or 'mine'. Equally, as advocates for their service area, they were happy to put forward business cases requesting additional resources, but were less so about putting forward business cases for efficiency savings or resource reductions that may have been deployed outside of their service area. As such, they expressed that they were comfortable about making trade-off and re-allocation decisions

implicitly within their own service area. but not explicitly across service areas. These points are illustrated in the following extracts:

> *"When you're actually reconfiguring within existing resources I couldn't see the point of putting in a business case for that."*
>
> *(Heads of Service Focus Group)*

> *"... we cost them [priorities] up and deal with our own laundry before putting them into the LDP because I may well be able to recycle some of my own cash before I ask for LDP money."*
>
> *(Heads of Service Focus Group)*

6.3.4 Data and information

Poor data and information were exposed through the PBMA process and presented a major challenge for future PBMA exercises:

> *"consistently good financial and information data is essential if we are going to make this successful and that was an absolute nightmare this time."*
>
> *(Heads of Service Focus Group)*

Specifically, the lack of timely and accurate financial data was consistently referred to as problematic because of the emphasis in PBMA on the programme budget and the use of cost data in the business cases. This is portrayed in the extracts below:

> *"as an organisation we lack the most basic financial data [...]. I have never worked with such poor data and that makes a farce of the whole exercise 'cause I am pulling figures out of the air."*
>
> *(Heads of Service Focus Group)*

> *"it's difficult having prioritisation systems based on numbers when the numbers that feed the beast are consistently incorrect."*
>
> *(Heads of Service Focus Group)*

There was no recognition that, in the absence of PBMA, decisions still had to be made and indeed were made using the same data and information. Also it was not clear whether the Heads were proposing that the availability and quality of data and information should be improved for decision-making purposes or that processes that utilise such data and information should not be used for decision-making.

6.3.5 Communication

Within the Consortium, communication on the PBMA process was conducted through existing channels, and relied on the Directors (as members of the Advisory Panel and as line managers), to communicate directives and progress on the PBMA exercise directly to the Heads of Service. However, Heads of Service argued that the PBMA exercise was poorly communicated from the outset and they would have benefited from upfront and ongoing formal communication and educational support. These views are expressed in the following extracts:

> *"you've got to get the communication right from the start and education about what we're trying to do"*
>
> *(Heads of Service Focus Group)*

> *"at the very beginning the objectives of the whole exercise should have been communicated better and right throughout the process there should have been more effective communication"*
>
> *(Heads of Service Focus Group)*

Consequently, the Heads of Service considered communication on the PBMA process to be ad-hoc and inconsistent, with Heads reporting that conflicting instructions from their Directors (as their line managers) led to confusion over the PBMA process. As described by one Head of Service:

> *"depending on who you spoke to you got a different story. I don't think that there was very good communication between the directors".*
>
> *(Heads of Service Focus Group)*

As result, poor communication and feedback on the PBMA led Heads to question the potential of PBMA. In particular Heads emphasised that the lack of communication in the PBMA process reflected their experience of past processes. As such, the PBMA process was associated with the failures of previous processes. In the extracts below, this is expressed in terms of the PBMA having fallen short of their expectations and resulted in scepticism about the potential value of the PBMA and the incentives for committing to a process that is similar to failed past processes:

> *"The sad thing is it reflects what happened before, the historical model of people being asked to put bids in and then not hearing and then not getting them. And this was going to be different. It was meant to be open, this was meant to be transparent, we'd have the criteria, people could see. Well the experience that you're [to another person in the focus group] describing is that it's the same old thing - we write business cases (a bid) for some money and eventually we don't hear and we assume that we haven't got it because we haven't heard."*
>
> *(Heads of Service Focus Group)*

> *"it [this experience] makes it very hard to support the process because you're sitting there with the clinicians on a regular basis and they're saying 'here we go again'... 'what is the point' ... we need to improve feedback in the future."*
>
> *(Heads of Service Focus Group)*

The themes from the focus group reflections of PBMA were used to refine commissioning performance in terms of the performance of the PBMA process, in the revised schematic model of commissioning discussed in 6.4.

6.4 Schematic model of commissioning with PBMA

The empirical evidence generated from the thematic analysis of the observational and focus group data was used to revise the schematic model of PCT commissioning described in Chapter 4, Figure 4.2. The revised model uses the key themes discussed in this chapter to illustrate how the PBMA process impacted on the commissioning process and commissioning performance. The model is presented in Figure 6.1.

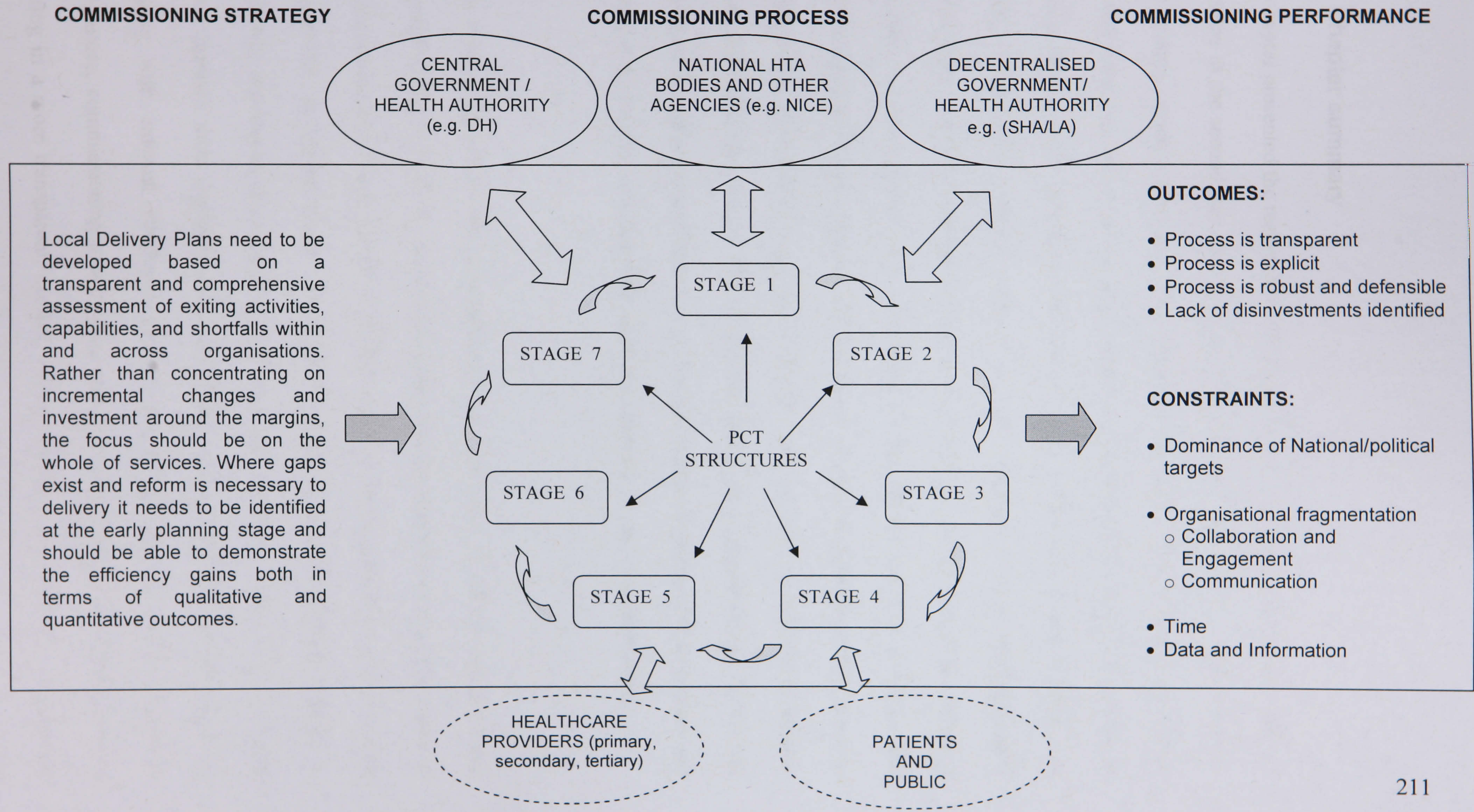
In this figure, the commissioning strategy, on the left hand side reflects the commissioning strategy promoted by the SHA at the time of this research and the strategy upon which the Commissioning Consortium was established. In line with the strategy illustrated in Figure 4.2, this strategy highlights the need to make comparisons among claims on resources and judge them against a range of qualitative and quantitative outcomes in order to achieve efficiencies.

The commissioning process in the centre of Figure 6.1 captures the PBMA process in terms of the stages described in Chapter 5. In this figure the PCT structures are illustrated as being central to the process. In this case, these structures fed-into different stages of the PBMA process through the Working Group, Advisory Panel, and Stakeholder Group. One group that is perhaps not well represented are the Heads of Service who were only engaged for a discrete part of the process rather than throughout all the stages. However, in contrast to Figure 4.2, this model places the PCT structures as driving the process. Additionally, the two way arrows between the PCT and the structures external to PCT indicate the potential for engaging with external structures through the PBMA process. In this exercise this was demonstrated in some ways better

than others. For example, the PBMA process was able to capture and incorporate the demands from the DH, NICE, and the SHA. However, engagement with providers was restricted (although some providers were involved in an ad-hoc way either by Heads of Service in the development of business case, or through representation on the PEC and thus the Stakeholder Group). Nevertheless the potential for their engagement was demonstrated particularly at the stage of developing business cases. Similarly, it is feasible that the public or patients can be engaged, though there was no attempt to do so in this exercise. The potential for engagement is represented by the broken line in the diagram.

Finally, the commissioning performance on the right of Figure 6.1, as in Figure 4.2, illustrates where the commissioning process deviates from the commissioning strategy and is defined relative to the commissioning strategy. In Figure 6.1 the PBMA process results in better commissioning performance than was depicted in Figure 4.2 (Chapter 4). In this instance, the PBMA process seems to result in a more transparent, explicit, robust, and defensible process, each of which are illustrated as strengths of the process. One particular weakness highlighted in the process was the inability to identify disinvestments or efficiency savings. Commissioning performance also demonstrates the constraints or barriers that impacted upon the PBMA process and limited decision-makers' ability to achieve the commissioning strategy. In the main the constraints identified in Figure 6.1 are similar to those in Figure 4.2 and focus on the dominance of national or political targets in decision-making, organisational fragmentation, and restrictions of time, and data and information.

Figure 6.1 Schematic model of commissioning with PBMA



6.5 Chapter summary

This chapter presented the results from the observation of the implementation of PBMA conducted in the second part of the second phase of the PAR, and the results from the focus groups conducted in the third phase of the PAR. Observational data were collected using field notes which were subject to an analysis of themes. A number of common themes were identified and used to build an account of how PBMA was applied. Specifically, themes related to the conceptual and methodological understanding of PBMA and the context within which it was implemented, including the extent to which participants committed to the PBMA process, conflicts that impacted upon the PBMA process, and the effect of leadership on the PBMA process. The transcripts from the focus groups were also analysed using an analysis of themes. Emergent themes were used to identify specific challenges to implementing PBMA and suggestions for refinement of the process. Such challenges comprised both process and contextual challenges, including time, data and information, and communication.

These themes, from both the observation of the application of PBMA and the focus group reflections on PBMA, were used to inform the development of a refined model of commissioning illustrating the role of PBMA in the commissioning process as presented in Figure 6.1. In comparison to the model of commissioning presented in Chapter 4, Figure 4.2, this model illustrates the PCT structures as central to the commissioning process through their engagement in the PBMA stages. Similarly, the potential for engaging with external structures through the PBMA process is demonstrated. Furthermore, commissioning performance was improved through the PBMA process resulting in a more transparent, explicit, robust, and defensible process. A particular

weakness in the process was however, the inability to identify disinvestments or efficiency savings. On the other hand constraints in the commissioning process seemed to mirror those in the original model.

The following chapter presents a discussion of these results alongside the results of the previous chapters. The discussion draws on three main strands that cut across these chapters. These are: that decision-makers seem to share common principles about the allocation of resources, some of which align with economics, but they do not appear to adhere to these principles in practice; that decision-making is constrained in a number of ways; and that the constraints in decision-making not only create barriers for decision-making but are also used to define the identity of decision-makers and justify the status quo.

Chapter 7 Discussion and conclusion

7.1 Chapter overview

Following an overview of the thesis, this chapter presents a discussion of the analysis of PBMA prior to, during, and after its implementation in a commissioning organisation. The discussion draws on three broad issues that emerged from the results from Chapters 4, 5, and 6. Firstly, decision-makers seem to share common principles about the allocation of resources, some of which align with economics, but they do not appear to adhere to these principles in practice. Secondly, decision-making is constrained by factors such as capacity, capability, and time. Thirdly, the constraints in decision-making not only create barriers for decision-making but are also used to define the identity of decision-makers and justify the status quo. Each of these points is discussed in turn, positioning the findings in relation to the literature. Drawing on the discussion points raised, the implications of these findings for policy and practice, and recommendations for the future are related to the application of PBMA and economics approaches more generally. This is followed by a reflection on the implications for research, including the contributions to, and limitations of, the research, and future research directions.

7.2 Thesis summary

The research presented in this thesis was generated by the researcher working within and alongside an NHS commissioning organisation to identify and understand how commissioning was organised and to explore the potential for using health economics. Specifically, programme budgeting and marginal analysis (PBMA) was used as a

vehicle to study how health economics can be informed by, and inform, the management of scarce resources in the 'real-world'. The research sought to answer the following questions:

1. What are the main approaches to managing scarcity in theory?
2. How is scarcity managed in PCTs and through commissioning practice?
3. Can economic principles to managing scarcity be incorporated into commissioning practice?

In addressing these questions, the aims of the research were to:

- identify approaches to managing scarcity in the health services research, management, economics, and ethics literatures
- examine PCT decision-makers' views on managing scarcity and commissioning – specifically, how commissioning is understood in principle, and how this translates into practice
- develop, implement, and observe the application of PBMA as a framework for managing scarcity to fit with the organisational structure of PCTs and account for the barriers and facilitators of such implementation
- evaluate how the PBMA framework is interpreted and reconstructed by users within the PCT and whether the use of the framework results in improved process and management of scarce resources.

In meeting the above aims, the contributions of the research reported in the thesis have been the:

- development of a comprehensive thick description and a new conceptual model of PCT commissioning in England
- advancement of the use of rigorous qualitative research in health economics through the unique application of a participatory observation approach to study the use of economic principles in the context of PCT commissioning in England
- advancement of the PBMA literature from the use of PBMA as a method or 'tool' for decision-making, to the use of PBMA as a vehicle for introducing economics into the decision-making process in an iterative and inclusive manner

- development of general lessons for the application of economics and PBMA not only with respect to PCT commissioning but in any context that requires the management of scarce resources.

The second chapter of the thesis outlined economic theory as applied to the management and allocation of scarce resources and provided the basis from which to critique approaches used in practice to managing scarcity identified from the literature. Economic theory begins from the basic premise that resources are scarce and therefore there is a need to make decisions about the allocation of resources that will maximise societal welfare from the resources available. Such decisions are underpinned by the principles of 'opportunity cost' and the 'margin', meaning that the costs and benefits of the use (and potential use) of health care resources should be compared so that resources can be allocated to those which maximise the benefits from the total resources available.

A review of the literature on managing scarcity in practice identified several approaches that could be split into health economic and health service approaches. Health economic approaches included economic evaluation, QALY league tables, and PBMA; health service approaches included needs assessment, core services, national policy guidelines, and balanced score card. The critique of health service approaches argued that such approaches do not account for the economic principles of opportunity cost or the margin and are therefore likely to lead to the inefficient use of resources. Some economic approaches such as economic evaluation (specifically cost effectiveness/utility analysis) and QALY league tables were subject to the same criticism as well as additional challenges in implementation that meant they were not routinely adopted in practice. PBMA was identified as an approach that did adhere to the economic principles outlined above. Furthermore, PBMA offered a process for managing scarcity and thus

presented a potential vehicle through which economic principles could be utilised in the management of scarce healthcare resources. However, in order to study the application of economic principles in practice and to develop a better understanding of the use of economics in the context and complexities of the 'real world', it was noted that it was necessary to adopt an alternative research paradigm, utilising qualitative research, to study how PBMA was used, adapted, and refined.

To address this, the research was conducted using a participatory action research (PAR) framework to study PBMA in three phases: before, during, and after its introduction into an NHS commissioning organisation. Qualitative methods of data collection and analysis were used in each phase of the research. Interviews were used to examine the commissioning and organisational context prior to the introduction of PBMA, observation was used to observe the application of PBMA as it was introduced into the organisation, and focus groups were used to gather reflections for refinement following the application of PBMA. Each data set generated through these methods was analysed using an analysis of themes to identify and examine emerging concepts.

The interview results from the first phase of the PAR were used in Chapter 4 to build a thick description of the current commissioning context and the constraints inherent in the commissioning process in PCTs. Using these results, a schematic diagram was developed (Figure 4.2), outlining the commissioning strategy (a set of normative statements about what guides commissioning decisions); the commissioning process (the structures utilised in commissioning, the methods that drive commissioning, and the impact of structures external to the PCT on both of these); and the performance of

the commissioning process (weaknesses of the process and constraints within the PCT that limit their ability to undertake commissioning in line with the strategy).

The results from the second phase of the PAR were presented in two chapters. The first, Chapter 5, described the application of PBMA as a potential framework for commissioning as implemented within the Commissioning Consortium which was established by three PCTs to undertake commissioning for secondary care. The second, Chapter 6, presented the results from the observation of the implementation of PBMA within this organisation. A number of common themes were identified and used to build an account of how PBMA was enacted. Specifically, themes related to the conceptual and methodological understanding of PBMA, and the context within which it was implemented. These included the extent to which participants committed to the PBMA process, conflicts that impacted upon the PBMA process, and the effect of leadership on the PBMA process. The results from the focus groups (the third phase of the PAR) were also presented in Chapter 6. The results drew on an analysis of themes to identify potential barriers and facilitators in the implementation of PBMA. Such barriers comprised both process and contextual challenges, including time, data and information, and communication. The themes from both the observation of the application of PBMA and the focus group reflections on PBMA were used to revise the schematic model of commissioning presented in Chapter 4, Figure 4.2 and inform the development of a refined model illustrating the role of PBMA in the commissioning process illustrated in Chapter 6, Figure 6.1.

7.3 Overarching findings

The findings from Chapter 4 (the commissioning context prior to the introduction of PBMA) illustrated PCT commissioning in terms of six themes that constituted the commissioning strategy (concepts and principles), the commissioning process (structures and methods), and commissioning performance (outcomes and constraints). The results showed that PCT decision-makers seemed to share a common conceptual understanding of decision-making. Decision-makers acknowledged that resources are scarce, claims on resources are competing, and that choices and trade-offs have to be made, and even identified a common set of commissioning principles that they suggested ought to guide decisions about such choices and trade-offs.

However, the principles did not seem to translate into commissioning practice. Although PCTs comprised a number of structures with roles for identifying, debating and validating, and endorsing commissioning decisions, the commissioning process and the resulting decisions appeared to be driven by structures external to PCTs (such as NICE, the DH, SHA, and the Acute Trusts) through political, historical and clinical commissioning 'methods'. As a result it was not clear that the commissioning concepts and principles outlined above were realised through the PCT structures or the commissioning methods. Indeed, the outcomes of the commissioning process defined the process as unsystematic and lacking transparency, and constraints inherent in the process were identified as limiting PCTs and decision-makers' abilities to undertake commissioning in line with the strategy and used to justify the commissioning outcomes. In particular, the commissioning process was depicted by decision-makers as controlled by central government; hindered by organisational boundaries that created and maintained different (and often conflicting) cultures and prevented organisations

cooperating with one another; and impeded by a lack of capacity (i.e. numbers of people), capability (i.e. skills, data and information), and time.

The introduction of PBMA in a commissioning organisation described in Chapter 5 was applied primarily as a vehicle for embedding the economic principles of managing scarcity into the commissioning process, and secondly to attempt to improve on the commissioning outcomes and overcome some of the commissioning constraints identified in Chapter 4. The findings from the observation of the introduction of PBMA (discussed in Chapter 6) were presented in eight themes: conceptual and methodological understanding of PBMA, buy-in to the PBMA process, control of decision-making and the PBMA process, leadership of the PBMA process, conflict affecting the PBMA process, confidence in the PBMA process, coordination and fragmentation in the PBMA process, and deferral of decision-making and impact on the PBMA process.

The observation results provided an account of how the PBMA process was undertaken in relation to the application of the PBMA 'method' and the cultural context into which it was applied. In terms of the method, the extent of conceptual understanding of PBMA seemed to vary between the hierarchies of the organisation. Additionally, methodological problems included: problems in making comparisons between business cases for public health interventions and (acute) service delivery interventions, the concept of the potential number of beneficiaries for public health interventions (which may have led to inflating the marginal benefit estimates for these interventions), and the lack of a defined scale for rating all business cases.

In terms of cultural context, the PBMA process was primarily controlled by the CE of the organisation which meant that he was, on the one hand, able to influence the direction of the PBMA exercise (perhaps more so than others in the organisation) but, on the other hand, raise the prominence of it within the organisation. However, leadership of the PBMA process was embedded within one Directorate within the organisation and in particular, one individual – the Director of Public Health. As a result, the PBMA became the responsibility of one person and meant that it was often difficult to integrate and coordinate the PBMA process with other processes (such as the LDP or data collection processes) in the organisation. This was further compounded by the fact the organisation was fragmented and that there was established political (with a small 'p') conflict between the other local healthcare organisations in which the PBMA exercise was undertaken. Furthermore, such conflict impacted on the extent of engagement in the PBMA exercise with these other organisations. Even within the commissioning organisation itself, engagement differed between hierarchies and over time, with those engaged regularly in the process committing to and having greater confidence in it. Finally, a climate of deferring decision-making influenced the extent to which the PBMA exercise was able to explicitly identify disinvestments.

Reflections on the PBMA following its introduction were detailed in Chapter 6. The findings were presented in terms of five themes that reflected on the PBMA process and challenges. In terms of process, there were few incentives for identifying efficiency savings or disinvestments and the benefit/cost ratio was not adopted in the decision-making process. On the other hand, the process was considered to be an improvement on previous decision-making processes, providing a robust and explicit approach to decision-making that resulted in greater transparency and objectivity. Nevertheless,

there were a number of challenges that arose in the PBMA process that impacted on the extent to which the process could be considered to be robust, explicit. transparent and objective. These included: the short time-frame in which the exercise was conducted. limited engagement and collaboration both within and outside of the organisation, the unavailability and poor quality of data and information, and the lack of systematic and on-going communication of the process within and outside of the organisation.

In summary, the extent to which the PBMA process was successful can be judged in two ways – first, in terms of its success in embedding the economic principles of managing scarcity into the commissioning process, and second, in terms of improving the commissioning outcomes and overcoming the commissioning constraints identified in Chapter 4. With regard to the first of these, the economic principles of opportunity costs and the margin were realised in the development and assessment of business cases, though the lack of explicit disinvestments prevented further exploration of these principles in the decision-making process. However, there was some evidence that reinvestment was done implicitly within programme areas. Furthermore, the purpose of the research was not on the technical implementation of PBMA, but on offering an alternative way of thinking about and approaching managing scarcity using an economic framework. As such, the success of the PBMA process can be judged with regard to second of these measures. The PBMA exercise enabled the PCT to drive the commissioning process (rather than it being driven by structures outside of the PCT). Additionally, there was the potential for engaging with external structures through the PBMA exercise and the process was able to capture and incorporate the demands from the DH, NICE, and the SHA. However, engagement with providers was restricted, though the potential for their engagement was demonstrated particularly at the stage of

developing business cases. As a result, the PBMA process was considered to be more transparent, explicit, robust, and defensible than previous commissioning process by those who participated in the exercise. However. a significant weakness of the exercise was the inability to explicitly identify resource disinvestments or efficiency savings. Furthermore, the PBMA exercise was not able to overcome the commissioning constraints identified prior to its implementation and was subject to similar constraints including the focus on national or political targets, organisational fragmentation, and restrictions of time, and data and information. Nevertheless, further iterations of PBMA (something that was welcomed by the organisation) need to be undertaken to determine whether these constraints can be overcome in the long term and whether the economic principles of opportunity cost and marginal analysis can be borne out in reality through the identification of explicit resource disinvestments.

7.4 Discussion of findings

The discussion draws on three main issues that cut across the findings from each of the results chapters. These are: that decision-makers share common principles about the allocation of resources, some of which align with economics, but they do not adhere to these principles in practice; that decision-making is constrained; and that the constraints in decision-making not only impede decision-making but are also used to define the identity of decision-makers and militate against change. Each point is discussed in turn, positioning the findings in relation to the literature.

7.4.1 Decision-makers share common principles some of which align with those in economics, but they do not adhere to these principles in practice

The interview results, as illustrated in the schematic model of commissioning (Figure 4.2), showed that decision-makers shared a common conceptual understanding of decision-making which was further defined by a common set of commissioning principles that decision-makers suggested ought to guide decisions about choices and trade-offs. The principles outlined by decision-makers were that: claims on resources should be compared and judged against one another, claims should meet a common set of objectives which need to be balanced, and claims should achieve value for money. What is compelling about the results presented here is that they are based on the analysis and interpretation of interview responses from participants who were actively involved in making such commissioning decisions. Given the remit of this thesis, it is therefore particularly interesting to note that the commissioning concepts and principles identified by decision-makers are not dissimilar to those concepts and principles promoted within health economics. These are therefore not alien concepts to decision-makers, who, on the contrary, seem to be familiar with the rhetoric at least.

This claim is also backed up by Mooney and Wiseman (1999) who state that: "health care policy makers are just as keen as are economists that policies be implemented efficiently and equitably". However, they continue that: "something gets in their way at least as far as pursuing the objectives as perceived by economists." As such, they suggest that: "In other words we believe that decision-makers are aware of the advantages and desirability of efficiency and equity in health care policy making and

indeed are reasonably well aware of the nature of efficiency and equity" (Mooney and Wiseman, 1999).

Although the principles outlined above are visible in or integral to the commissioning strategy as described in Chapter 4, these principles did not seem to impact on the commissioning process. To recollect Mooney and Wiseman above, "something gets in [decision-makers'] way." The interview results illustrated that the commissioning principles identified by decision-makers did not seem to translate into practice. The principles were not actively promoted in the commissioning structures which comprised the semi-formal planning groups, and the more formal PEC and PCT Board, whose roles were synonymised with supporting, debating and validating, and endorsing commissioning decisions respectively. Furthermore, the principles were not inherent in the methods of political, historic, and clinical commissioning that were driven by structures outside the PCT such as NICE, the DH, the SHA, and the Acute Trusts. Indeed, these structures dominated the commissioning process. As a result, decision-makers perceived the outcomes of the commissioning process as unsystematic and lacking transparency.

The extent to which the process of commissioning is driven by principled decision-making has been raised in the literature. Internationally, surveys in various countries have found that decision-makers recognise a lack of systematisation and rigour in decision-making (Miller et al., 2006, Hunter, 1993a) and it has been repeatedly shown that decision-making processes often lack transparency and systematic structure (Gibson et al., 2004, Ham and Robert, 2003, Bravo Vergel and Ferguson, 2006).

Specifically, in his study of decision-making in Scottish Health Boards, Hunter (1979) showed that the process of allocating growth monies tended to involve "a policy of appeasing competing demands" rather than being reviewed against any defined goals or objectives. Hunter observed that resources were therefore allocated through a mix of precedent and organisational routines which resulted in historical priority setting (Hunter, 1979). With respect to the English NHS, reflecting on the problems of financial management and the extent of financial deficits in previous years, commentators have questioned the extent to which 'robust' commissioning is happening in PCTs (National Audit Office and Audit Commission, 2006, Maynard and Street, 2006, Harding, 2006, Ham, 2006, Smith and Mays, 2005). Recent research conducted in Yorkshire and Lincolnshire (Bravo Vergel and Ferguson, 2006) found that PCTs often failed to articulate and make the rationale for their decisions explicit and accessible.

In the PBMA exercise, the process for commissioning was formalised through the PBMA stages outlined in Chapter 5. The PBMA process as illustrated in Chapter 6, Figure 6.1, placed the PCT structures at the centre, driving the commissioning process and demonstrated the potential for engaging with structures external to the PCT as opposed to them dominating the process. The PBMA process seemed to result in a more transparent, explicit, robust, and defensible process; however the problem of translating principles into practice was also evident in the inability of the Consortium to identify disinvestments.

At the outset of the PBMA exercise the organisation was committed to making efficiency savings in the face of a large deficit across the Consortium. However, by the end of the PBMA process no efficiency savings were made, either through service

disinvestments or service redesign, and the Consortium instead invested more resources. There appeared to be several reasons for this.

First, as described in Chapter 5, Section 5.3.1, and Chapter 6. Section 6.2.5, the process for identifying the options for investment and disinvestment was based more on identifying service developments to meet national targets rather than a marginal analysis of the costs and benefits of the current provision of services. Second, the business case approach adopted in the PBMA exercise was a familiar feature in the business planning cycle of Acute Trusts and the former Health Authorities. Nevertheless, historically and practically, it had tended to be used as a process for bidding for development resources rather than to identify resource savings. It is therefore conceivable that the business cases continued to be used in the same way in the PBMA process for bidding for additional resources.

Third, as illustrated in Chapter 6, Section 6.3.3. Heads of Service were reluctant to make efficiency savings from service disinvestments or service redesign explicit, preferring instead to fund investments by making such trade-offs and reallocating the efficiency savings implicitly within their own service areas. As such, they did not think it necessary to put forward business cases for disinvestments which they could reinvest in investments in their own service areas. Fourth, as highlighted in Chapter 6, Section 6.2.8, towards the end of the end of the PBMA exercise, the forecast for the Consortium's deficit was amended and despite the fact that the Consortium was still in deficit (though not to same extent) the decision was made by the CE that a small deficit could be carried by the organisation in order to fund the service investments identified

by the PBMA exercise. This negated the need to identify efficiency savings from disinvestments though it was not clear how the deficit was 'amended' and whether the resources that were used to amend the deficit came from disinvestments made implicitly elsewhere in the organisation.

In the literature, the problem of identifying disinvestments has been referred to as the "Achilles heel" of PBMA as scarcity never bites if decision-makers operate in a culture of expecting more resources and are not willing to make trade-offs over the allocation of resources (Mitton and Donaldson, 2004). Mitton and Donaldson (2004) argue that this is in part justified because budgets in healthcare are rarely truly fixed, as has been illustrated in the results of this thesis. Alternatively, Mooney and Wiseman (1999) suggest that decision-makers may simply be "romantics" in the sense that they fail to accept that resources are scarce or fail to take responsibility for making tough decisions. This, they argue, is exemplified by the fact that in their experience decision-makers are willing to make incremental investments on the basis of the available information but will not make incremental disinvestments on the basis of the same information, calling for better information before making a decision (Mooney and Wiseman, 1999). Additionally, Coast points out that a driving principle in decision-making is avoiding the distress of denial (Coast, 2001). In other words, decision-makers may be to be reluctant to make disinvestment decisions that may imply the denial of care or services to a specific population in order to minimise their own disutility. As such Coast argues that the concept of denial disutility results in a lack of decisive or 'objective' decision-making (Coast, 2001).

7.4.2 Decision-making is constrained

The interview, observation, and focus group results all identified the presence of constraints on decision-making as reasons for the lack of principled decision-making discussed above. Constraints were inherent in the commissioning process or organisational context and were defined in terms of barriers that limited the ability of decision-makers to incorporate the commissioning principles discussed above in practice. Constraints included a lack of control and choice, a lack of cooperation, and a lack of capacity.

First, in terms of control and choice, the interview results described in Chapter 4, Section 4.4.2 and 4.5.2, indicated that decision-making was perceived to be dominated by politics, that is, controlled by central government through the implementation of national performance assessment targets and national guidelines. The extent of the influence of these national drivers was also witnessed in defining the remit of the PBMA exercise (Chapter 5, Section 5.3.1) and observed in the application of the PBMA process (Chapter 6, Section 6.2.5 and 6.3.1). The Commissioning Consortium was performance managed on the basis of meeting the performance assessment targets and as such, decision-making ended up restricted to allocating resources to meet the performance assessment targets first and foremost, irrespective of whether this would maximise benefits.

The influence of politics in decision-making has been well documented both in UK healthcare organisations (though much of this refers to former organisational

incarnations of PCTs) and internationally (Fox, 2006, Ham. 2004, Hunter. 1993a, Klein et al., 1996, Ham and Robert, 2003, McDonald, 2002, Mitton et al., 2003b, Mitton and Donaldson, 2003c, Klein, 2006, Checkland, 1997). In the UK, as far back as 1979, Hunter's observations of the allocation of resources in a Scottish Health Board noted that one of the constraints over the allocation of resources was the interface between health boards and the centre and the fact that the health boards were constrained by the need to observe national policy which, he suggested, limited their freedom to manoeuvre (Hunter, 1979). Similarly, Ham has stated that local decisions are shaped by inherited local commitments and by bargaining between different interests, stating that "priority setting is an area in which the politics of the NHS are played out at a local level" (Ham, 2004). More recently, a survey of PCT managers in the Health Service Journal showed that two-thirds of respondents said that the NHS would not be facing such financial problems if it were not for the inflexible government targets (Martin, 2006). This view is reiterated by a former PCT Chair who argued in the Health Service Journal that:

> PCTs are led by their noses from the centre, through the delegated power of the SHAs. The board became bogged down and frustrated by demands from the centre. Board members were advised by the SHA that we had to earn the privilege of developing local initiatives. If it wasn't a national target, forget it.
>
> (Young, 2005)

Specifically, in relation to PBMA, other authors have noted that politics tends to 'trump' decisions made within the process and can result in 'crisis' decision-making (Mitton and Donaldson, 2003c, Mitton and Donaldson, 2004).

Nevertheless, as the literature indicates, the influence of politics in decision-making is historic and widespread and decision-making is therefore neither neutral nor abstract.

As such, it is important to try to explicitly acknowledge politics within the decision-making process rather than ignore it. In the PBMA exercise, political imperatives were explicitly incorporated into the PBMA process and used to inform the development of service investments. Therefore, despite the fact the results of the exercise focussed on the national targets, it was not surprising. Though it did raise questions as to why a process such as PBMA was used to accomplish the predictable (Chapter 6, 6.3.1).

The second constraint, lack of cooperation was defined by institutional and temporal fragmentation and discontinuity in decision-making. As described in Chapter 6, Section 6.2.7, the Consortium tended to operate in the 'silos' of Directorates with little or no engagement or input from the other Directorates. In turn, the work of the Directorates became associated solely with the individual directorates (rather than the organisation more broadly) and there was a lack of 'joined-up' working and thinking across the Consortium. As a result of this fragmented culture, the PBMA exercise became the sole responsibility of the DPH and was aligned with him rather than the entire organisation.

Institutional fragmentation was also evident implicitly in the PBMA process when trying to access information for example. As discussed below, the collection of data and information was not coordinated and the availability of and access to information varied between the Directorates. This is not unique to this context, but endemic in the health service which has been described as duplicating information, lacking systems for data sharing, and using information in isolation from the financial systems and other processes (Nolan, 2006).

This concept of institutional fragmentation has also been illustrated by Checkland (1997) who conducted a series of interviews and observational research on contracting in the UK health service in the early 1990s revealing that there was little interaction between stakeholders within and across healthcare organisations. Additionally, Currie (1999) highlighted that middle managers within the acute sector felt that they carried out their business planning process in isolation from other directorates. Côté argues that such fragmentation and isolation is an inevitable consequence of the "silo-effect" which stems from decentralised management and results in a department's interest (in this case, a Directorate's interests) taking precedence over the well-being of the organisation (Côté, 2002). Furthermore, he notes that the "silo-effect" results in a lack of cooperation, internal competition, and the breakdown in communication, issues that are returned to in the following section (7.3.3).

The third constraint, lack of capacity, was referred to in the interviews in terms of a lack of capacity (i.e. numbers of people), capability (i.e. skills, data and information), and time. This was reiterated in the results from the observation and reflection of the implementation of PBMA. As described in Chapter 6, Section 6.2.7, the Commissioning Consortium was a new organisation and those involved in the PBMA exercise were newly recruited. Indeed many of the Heads of Service and some Directors had no prior experience of commissioning in the health service and therefore lacked the capacity and capability for commissioning.

With reference to capability, the emphasis on the use of data and information as a basis for PBMA exposed the lack of data and information, as well as its poor quality and

accuracy (Chapter 6, Section 6.3.4). Though there was a lot of data collected both locally within the organisation and from national sources, this was not always translated into useful information. Furthermore, although the Consortium was served by an 'information service', there was no central repository for any data collected across the Consortium and the availability of data and/or information differed between individuals and Directorates within the organisation.

Finally, the timeframe for the PBMA exercise was imposed by the organisation to mirror the commissioning cycle and the LDP process. The exercise was therefore conducted over a timescale of 7 months. In this time frame some of the later stages of PBMA, due to delays in the early stages, had to be completed in a relatively short period of time. Specifically, the Heads of Service were only given around 2 weeks to identify, complete and submit business cases. These timescales were deemed by some Heads of Service as too short, though those with prior commissioning experience, whilst not implying that the timescales were ideal, likened the timescales to the standard commissioning process. Had the PBMA process and the LDP process been sufficiently integrated (Chapter 6, Section 6.2.7), the issue of time may not have been raised. However, that they were not may have resulted in duplicating or additional work for those involved in the exercise.

Constraints on decision-makers such as capacity, capability, and time have been widely reported in the literature both nationally and internationally. In particular, critical capacity (people), capability (expertise), time constraints, and support tools and methods have been highlighted as essential in improving decision-making (Ham, 2004,

Mitton and Patten, 2004, Smith et al., 2004). In the UK. Hunter (1979) identified several internal constraints on resource allocation including a lack of information and a lack of 'real time'. With respect to information, Hunter found that a lot of information was not used and that there were problems of access to information. With regard to time, Hunter noted that the use of a rigid timetable in the allocation of resources meant that there was little time to prepare cases for funding and also insufficient time in the process to review requests for funding.

In terms of PCTs, most of the literature has focussed on the lack of competencies and skills of commissioners for commissioning, illustrating the lack of capability and expertise in commissioning (Smith et al., 2004, Ham, 2004). Specifically, it is has been claimed that commissioners still lack basic information for commissioning as well as the management capacity to deal with it and the analytical skills to be able to interpret it (Edwards et al., 2006, Whitfield, 2004, Nolan, 2005). Furthermore, Edwards argues that "having information and skills [...] is not enough. [...]. There is a lack of focus on the detailed operation and the design of operations. In other words, once I have interpreted the information, what do I do? We have not equipped people with these operational skills" (Edwards as cited in Taylor (2006)). As Edwards suggests, information and skills need to be employed within a coherent decision-making process rather than on an ad-hoc basis. Similarly, international research has shown that constraints in decision-making such as a lack of time and lack of skills need to be tackled through specific operational processes, and supported by strong leadership and change management (Mitton and Patten, 2004, Gibson et al., 2004, Reeleder et al., 2006).

7.4.3 Constraints in decision-making not only impede decision-making but are also used to define the identity of decision-makers and militate against change

Several constraints in decision-making have been discussed above. However there are broader implications to identifying such constraints. Firstly, interviewees present these constraints as 'real barriers' that impede the decision-making process. Secondly, the discourse about barriers merely suggests that such barriers are bad because they hinder change, which is good, and as a consequence such barriers should be removed. However, Checkland et al. (2007) in their study of the implementation of clinical guidelines argue that it is unhelpful to simply identify such constraints as 'barriers to change', particularly when explaining the effects of an intervention intended to change behaviour or systems. Instead, Checkland et al. (2007) state that:

> barriers are constructed by those working within the organisation to justify their actions and construct an organisation that conforms to a set of collective beliefs about what is acceptable [...] this process of construction is iterative and shapes, generates, and reinforces a collective identity.
>
> (Checkland et al., 2007)

The following discussion illustrates how the above constraints work in paradoxical ways, to help to define the identity of decision-makers as hard working, but as struggling to cope with the many demands put on them and powerless to change the status quo. Each of the constraints, lack of control and choice, lack of cooperation, and lack of capacity are discussed in turn.

The first of these constraints, lack of choice and control as discussed in the previous section, is illustrated throughout the results in terms of the influence of structures external to the PCT on decision-making. In particular the emphasis in the interview

results was on the dominance of politics and the impact of the national drivers and targets (Chapter 4, Section 4.5.2). This was also evident in the PBMA exercise in terms of its focus on identifying services for investment in line with the national performance targets. Furthermore, it was also observed that resources were allocated in order to avert local political tensions by maintaining relationships with key stakeholders for example (Chapter 6, Section 6.2.5). In these results, the lack of choice and control portrays decision-makers as engaged in reactive, rather than proactive decision-making.

Reactive decision-making is described by McDonald (2002) as a consequence of decision-makers attempting to pursue many objectives and, unable to do so, focussing only on what is immediately visible and resorting to reacting to demands or 'fire fighting'. The problem with reactive decision-making is that service changes are often not evaluated and goals for allocating resources to service changes vague. Instead, resources are allocated on the basis of maintaining or building trust with stakeholders – so called "buying goodwill" or "more is better" (McDonald, 2002). Similarly, Hunter (1979) found that decision-makers tended to cope with what he termed as "puzzlement" on their part about what they should be doing and how they should be doing it by allocating resources according to "fair shares" (ensuring resources were allocated to many service developments rather than simply a few), "who has done alright so far" (ensuring resources are allocated to those service developments who may not have received resources in previous years), and "something is better than nothing" (Hunter, 1979).

As such, reactive decision-makers, constrained by their external environment, are unable to manage resources through disinvestments or reallocation and opt for simple 'methods' of allocating resources. Reactive decision makers are therefore disempowered, unable to make strategic decisions in the management of scarce resources that require trade-offs between investments and disinvestments. As Hunter (1979) argued, reactive decision-making simply serves to maintain the current processes and systems. This is reflected by Currie (1999) whose research on the influence of middle managers in the business planning process in an NHS Hospital Trust showed that the business planning process was more focussed on the national priorities and did not reflect the local clinical and managerial practice – an outcome that resulted in middle managers reporting feeling disempowered. Furthermore, this view is reiterated by a PCT Chair reporting in Health Service Journal who states that:

> 85% of a PCT's expenditure is on sustaining block contracts with local hospitals, the GP contracts, prescriptions, all of which only allow the PCT marginal scope to drive up efficiency. PCTs may hold the budget but we do not control it. We do not make the commissioning decisions. We are not empowered to prioritise services against achieving financial balance.
>
> (McFarland, 2005)

Reactive decision-making therefore not only positions decision-makers as hard working (denoted by fire fighting) but, at the same time, disempowered. The effect of disempowerment allows decision-makers to justify focussing on simple methods of resource allocation that involve the marginal allocation of additional resources and maintaining the status quo.

The second of these constraints, lack of cooperation, was described in the interview results in terms of the impact of organisational boundaries in creating and maintaining

different (and often conflicting) cultures, which prevented organisations integrating and communicating with one another; and generated hostility and conflict between organisations (Chapter 4, 4.5.2). In the PBMA exercise, organisational fragmentation and discontinuity resulted in a lack of cooperation and collective decision-making (Chapter 6, Sections 6.2.7 and 6.3.3).

The lack of collective decision-making in the PBMA process meant that knowledge and skills about PBMA were embedded in a single person (in this case the DPH), rather than the organisation and, as observed in Chapter 6, Chapter 6.2.4, when the DPH was absent from the organisation (on holiday for example), the process stalled. Furthermore, because the PBMA exercise was the responsibility of a single Directorate and the DPH, there was no incentive for anybody else to take on this responsibility in the DPH's absence. In addition, the lack of discontinuity in decision-making meant that there was virtually no organisational memory to feed into the PBMA. For example, knowledge about the availability of information and data, lessons from previous commissioning processes and methods, sensitivity to local political or cultural issues, and established relationships and key contacts was limited.

In addition, the lack of collective decision-making was underpinned by a lack of communication and engagement which continued throughout the PBMA exercise. The lack of communication influenced how the PBMA was perceived within and across the Consortium, particularly by the other Consortia PCTs, and affected the extent to which the other PCTs engaged with the PBMA and the significance they placed on it.

Furthermore, there was an absence of communication and broad engagement in the PBMA exercise, specifically with frontline clinical providers.

Lack of communication and engagement is portrayed in the literature as impacting on the ability of decision-makers to manage the allocation of resources. In particular, a lack of communication within PCTs between commissioning and finance has been attributed to failures in financial management (Bamford, 2005), and engagement with frontline staff (clinicians) is repeatedly put forward as the solution to achieving better models of services with the resources available (McKeon, 2006, Mitton and Donaldson, 2003c, Mitton et al., 2003b, Checkland, 1997, Edwards, 2006a). Indeed, as Barrett et al (2006). state:

> It is important to remember that clinicians have the ultimate priority setting power and therefore the focus for change should be at the clinical coal face. Patients are not anonymous, particularly to the doctor treating the patient. It is they who have to choose which treatments to give and how to provide care. This is the ultimate reality.
>
> (Barrett et al., 2006)

Furthermore, Edwards et al. (2006) argue that the responsibility for financial management in the NHS has to be tackled on a whole-system basis, that financial problems are "everybody's problems", and that "the stand-offs between providers and commissioners are adolescent in the extreme".

However, as illustrated in the PBMA exercise, enabling communication and engagement in a fragmented organisation, let alone between organisations, is not straightforward. Lack of communication and engagement in decision-making are

manifest in a lack of trust between stakeholders within and between organisations (Mitton and Donaldson, 2003c, Mitton and Prout, 2004). Similarly, Côté (2002) contends that a fragmented organisation results in a lack of trust which needs to be improved in order to enhance respect amongst peers and allow them to share their objectives and those of the organisation within the organisation and across divisional structures .

Moreover, problems of trust are embedded in the relationships between stakeholders which are fraught with baggage, vagueness and stereotypes (Edwards, 2004). Research by the NHS Confederation cited by Edwards (2004) showed that PCTs thought Acute Trusts were bullying, mean with information and resistant to change; whereas Acute Trusts thought that there were too many PCTs, and that they were inexperienced, indecisive, and poor at commissioning. Although Edwards illustrates these as merely stereotypes, breaking the stereotypes required the implementation of strategies to build trust between stakeholders and lead to a shared vision, real clinical engagement, shared risk management, and clear decision-making through an agreed process (Edwards, 2004).

It is easy to see here how tensions between stakeholders arise as a result of these stereotypes and the lack of collective decision-making more generally. Furthermore, it can be argued that it is convenient for decision-makers to maintain such stereotypes. In doing so, problems in decision-making can be externalised to other organisations which are beyond the decision-makers' control, and given that decision-makers are unable to

control or regulate the terms of their interaction or engagement with other stakeholders, the lack of communication and engagement outside the organisation can be justified.

Finally, the third of these constraints, the lack of capacity, illustrates decision-making as lacking adequate capacity, skills and time. Specifically, in the PBMA exercise, capacity problems were attributed to a lack of time and a lack of data and information. The lack of any coordinated approach to data collection described in the previous sections, meant that decision-makers were not aware of what data was available and where, and the data that was collected was often duplicated. Additionally, the quality of data was perceived by participants to be unsuitable as a basis of decision-making, despite having relied on the same data and information for decision-making in the past. Data quality was therefore considered to be a challenge for PBMA which, as a process, utilised this data.

The problem of a lack of time influenced decision-making in several ways. Firstly, the timeframe within which the PBMA was conducted impacted upon the extent of engagement in the PBMA, particularly with respect to timing and coordinating input to the PBMA from organisations outwith the Consortium. For example, the timescale for the PBMA was not designed to coincide with scheduled meetings that Heads of Service had with service providers, and so when it came to the production of business cases, there was little time to organise additional meetings to involve service providers. Likewise, the PEC members had to schedule specific PBMA meetings over and above their regular monthly meetings in order to provide input to the exercise at the times it was required. Second, lack of time compounded problems of lack of human capacity

and skills (which can be acquired over time). An immature organisation (one that has not been in existence long), necessarily lacks capacity for decision-making.

The use of time to demonstrate a lack of capacity in decision-making is significant. In public service discourse it is usual for time to be equated with effort – the amount of time spent doing something reflects the amount of effort. Consequently, by emphasising the lack of time for commissioning decision-makers are emphasising that they are busy. In other words, the problems encountered in commissioning are not as a result of decision-makers being lazy. However, time is limited and cannot be controlled or manipulated and, as such, the decision-maker is passive. Therefore, singling out time as a constraint removes the decision-maker as an agent able to control commissioning and, again, justifies the status quo.

These results demonstrate that the commissioning constraints collectively work to define the identity of decision-makers as disempowered in the commissioning process, implicitly exculpating themselves from the problems inherent in commissioning and thus justifying and sustaining the status quo.

7.5 Implications for policy and practice

From this discussion it is possible to draw a number of implications for policy and practice. These implications are discussed in the context of PBMA but they apply to any economics based process established and implemented at the level of local decision-making. The implications include: the challenge of change, building on what exists,

training and ongoing knowledge transfer and exchange, maintaining dedicated project management, focussing on programme areas, providing incentives, using care pathways, extending engagement, and simplifying methods of benefit assessment.

7.5.1 The challenge of change

The findings discussed above suggest that there is a need to empower decision-makers in commissioning. Simply attempting to remove so-called barriers to change will not actually result in change. As Checkland et al. (2007) argued, these barriers, as well as acting as constraints, are also used to define the identity of decision-makers which in this case is as disempowered. As such, structures and incentives need to be put in place to help empower decision-makers. PCTs will continue to be accountable for managing scarcity but actually have very little power to do so unless changes are made.

However, change in the health service is not straightforward. In his observations of Scottish Health Boards, Hunter (1979) claimed that decision-making constraints were so entrenched in the operational routines of the organisation, which were themselves a response to an uncertain environment, that the allocation of resources consisted largely of administering and maintaining a system rather than making fundamental changes to it. Furthermore, he pointed out that any discussion about change remained at the level of "coffee table chat" which was rarely translated into actual decisions. This view was also reiterated in Gerry Robinson's account of decision-making in an NHS Hospital Trust which he described as:

> the psyche was that you discussed it, and you had any number of people saying well we've been talking about this for two years, or I've brought this up with the committee for the last 10 years. There was just a kind of sense that what you did was you talked about it; you did everything but actually change it.
>
> (Robinson, 2006)

Similar observations were recorded in the PBMA exercise where a lot of effort was concentrated around debating change and deferring decision-making (Chapter 6, Section 6.2.8).

7.5.2 Building on what exists

Reflecting on the results, PBMA needs to integrated and embedded in the day-to-day running of the organisation and the management structures and processes not only in order to ensure they are better aligned with the commissioning process but also to improve the organisational memory. Ideally undertaking further iterations of PBMA would require relative organisational stability and a long-term strategic planning environment to allow those involved to explore the approach and develop its application to suit their needs. However, instability will likely always be an endemic feature of NHS organisations. It will therefore be important to try to build economic principles and the PBMA process into the organisational processes and structures, rather than simply embody them in individual people. As such, the PBMA should follow the annual budgeting and planning cycles, utilise existing organisational working and stakeholder groups, and capture routine data and information, not duplicate it. Furthermore, PBMA should be promoted as an iterative framework that will require ongoing adaptation and further refinement, and not as a quick-fix that can be used to provide the answer to difficult commissioning decisions.

7.5.3 Training and ongoing knowledge transfer and exchange

In this exercise the introduction of PBMA was preceded by an introductory workshop. Unfortunately, this workshop actually preceded the appointment of some key staff to the organisation and further training was delivered sporadically on an ad-hoc basis dependent on requests. As such, some participants lacked a basic understanding of the process and this affected the value that they placed on engaging with it and their portrayal of it.

In order to develop confidence and expertise in PBMA its introduction should therefore be accompanied by ongoing educational and training support. All those involved in undertaking a PBMA, including key stakeholder groups, should receive training in the key principles underlying PBMA. This is a necessary pre-requisite if the key stakeholders are to have ownership of the process. Furthermore, if stakeholders do not understand the methods used in the PBMA process, they are less likely to implement the outcomes from it. Such training does not need to be delivered technically or by someone external to the organisation. Indeed, given the necessity for ongoing training and support it would seem appropriate that this could be provided through specific individuals from within the organisation who act as partners through which knowledge (both technical academic and health service) is transferred and exchanged.

7.5.4 Maintaining dedicated project management

In this PBMA exercise, the process was well supported by the working group that included a full time public health trainee and a part time researcher (who was familiar

with PBMA) as well as two full time employees of the Commissioning Consortium including the DPH who had prior experience of PBMA. The researcher and public health trainee were able to dedicate time to managing and coordinating the exercise. Project management was essential to ensuring that the exercise was kept on track, collecting data, and liaising with stakeholders. However, in order for PBMA to be seen as a central activity of the organisation, the project management of PBMA needs to be taken on internally rather than by someone external to the organisation. Furthermore, it is not essential that the project manager is skilled in health economics, rather the role of the project manager is to coordinate the process across the organisation, ensuring that specific work required for the exercise is undertaken by those who are trained and skilled to do so, encouraging responsibility for the work to be shared throughout the organisation.

7.5.5 Focusing on programme areas

This PBMA exercise was carried out at the macro level (i.e. across all programmes of care). Though offering the broad focus necessary for LDP decision-making, it imposed significant demands in terms of data and time. Furthermore, focussing on several programmes had implications for the identification of business cases for resource investment and disinvestment. In particular, decision-makers were wary about identifying disinvestments in order to fund services outside of the programme from which the resources were identified, preferring instead to disinvest to reinvest within their own service areas.

As such, PBMA is more likely to be successful in identifying both business cases for resource investment and disinvestment if it is conducted at the micro level i.e. within programmes of care (spanning both primary and secondary care) defined in terms of diseases, client groups, or clinical services. A micro PBMA exercise can be more simply and coherently defined as it is relatively self-contained and retains a narrow policy focus. Furthermore, it is at the programme level where routine data is collected and analysed, where organisational structures are arranged, where there is a history of collaboration in service planning and delivery, and where resource disinvestments (either through technical efficiency savings or service reduction) are evident.

7.5.6 Providing incentives

This PBMA exercise failed to identify any disinvestments. As suggested above, this may have been due to a lack of confidence in the process and therefore reluctance on the part of decision-makers to identify options for disinvesting resources to reinvest elsewhere in other services. This could be avoided if the PBMA solely focussed on single programmes (service areas).

However, in order to ensure disinvestments are identified it may be pertinent to put in place a number incentives which would force disinvestments. Indeed Mitton et al. (2003b) suggest that incentives need to be put in place in order to encourage disinvestment and resource reallocation within service areas and across others. In the example they use, they propose that for each $1 released from a service, 70cents goes to funding regional (or organisation-wide) options while 30cents remains within the service (Mitton et al., 2003b). In this example, decision-makers are given the financial

freedom to re-invest an agreed percentage of any disinvestments identified from their own services back into their own service, with the remainder allocated to investments across all services. An alternative option is to simply ensure that all options for resource investment are equally matched by options for disinvestment. Either way, it is important to ensure that disinvestments can be realised and that it is possible to shift resources between different areas of care, stages of care, or organisations. In order to facilitate this, a pathway approach (discussed below) which makes these trade-offs explicit may be useful.

7.5.7 Using care pathways

In addition to focussing on programmes, care pathways provide useful structures around which PBMA can be framed. Integrated care pathways involve participation from all relevant healthcare professionals, research on good practice, and consultation with patients, to build a care pathway for managing clinical care, processes, and patient outcomes (Davis, 2004). With respect to PBMA, care pathways can act as a common reference point for discussions about investment and disinvestment that engages finance staff, clinicians, providers, and commissioners. Pathways can also be populated with locally relevant cost, activity, and outcome data. Finally, they can be used to explicitly highlight the trade-offs across the entire pathway of care. The use of care pathways therefore offers a way to improve organisational integration and engagement in PBMA.

7.5.8 Extending engagement

Because of time demands, participation in the PBMA the exercise was intentionally limited. For convenience, Heads of Service were charged with developing business

cases though, due to the macro nature of the exercise and time constraints, these were developed in relative isolation and based on meeting the national targets (and not necessarily the objectives of the service). Additionally, the PECs were used as proxies for clinical and stakeholder input. Hence, the exercise was essentially driven from within the Consortium, but top-down, with little room for further engagement.

However, those engaged in the PBMA exercise recognised the value of their being so and those involved welcomed the opportunity to take part. In particular, the Advisory Panel meetings proved to be useful in creating a space for a collective, consensual approach to commissioning that attempted to break down some of the intra-organisational boundaries and allowed the different perspectives of those involved to be heard and debated, as well as giving the Panel members a sense of ownership of the process.

Additionally, engagement is more likely to enhance confidence in the PBMA process and acceptance of the outcomes of the process, as well as to help to break down some of the stereotypes discussed in Section 7.3.3, and thereby develop trust between the different organisations and stakeholders involved in the process. It is therefore essential that all relevant stakeholders are identified and invited to participate from the outset. Rather than establishing new groups specifically for the PBMA exercise, as suggested earlier, greater use should be made of existing frontline clinical service and management groups, patient and public involvement structures, stakeholder representatives, and voluntary organisations, in order to incorporate their views and values.

Furthermore, not all stakeholder groups need to be involved at all stages of the PBMA process but can be called on to provide their expertise at certain stages, whilst maintaining on-going dialogue and communication at other stages. For example, clinical and provider input is required in identifying cost data and outcome data for services as much of this information and expertise is held by service providers, and the implementation of changes to service delivery requires clinical and provider acceptance and ownership of those changes. Equally, the public and other stakeholders can be included in determining the benefit criteria upon which service changes should be judged, and in validating the changes through consultation prior to the actual reallocation of resources.

7.5.9 Simplifying methods of benefit assessment

In this PBMA exercise it was difficult to ascertain the extent which the benefits defined in the business case represented marginal or absolute benefits and thus whether the resulting benefit scores reflected the marginal benefits. The calculation of a single metric based on the ratio of benefits to costs was therefore not necessarily a useful or legitimate means for comparing all cases. Moreover, the Advisory Panel did not rely on the ratio as a means for comparison and instead considered benefit and cost information alongside each other, as well as additional information such as the number of beneficiaries.

As such, rather than striving to derive a precise value for the benefit/cost ratio, effort should be spent on explicitly defining, scoring, and presenting the constituent criteria

that comprise the marginal benefit information. Further work should also be undertaken to identify more rational and meaningful definitions of different types of patient beneficiaries, and more valid ways of estimating the numbers of people who would directly benefit from public health interventions.

7.6 Contributions of the research

The main contributions resulting from this research are two-fold. First, there are specific contributions to the use of qualitative research in health economics. Second, there are contributions to the discipline of health economics more broadly. Each of these is outlined below.

7.6.1 Contributions to qualitative research in health economics

Coast et al (2004) highlight the potential challenges of conducting qualitative research within the area of health economics. In particular they argue that the basis of this stems from the fact that economics is a discipline driven by theory rather than empirical data and thus there is much resistance to the empirical challenges that may result from the adoption of alternative research paradigms, and specifically qualitative research. In their paper, Coast et al. (2004) suggest that the use of qualitative methods within health economics could "challenge the systematic mode of thinking through challenges to the basic axioms upon which mainstream economics is built". Hence, for health economists doing qualitative research, there is a tension between improving the "systematic mode of thinking" of economics (and its application and relevance to health care) and threatening the disciplinary basis of health economics. This tension raises issues of identity for health economists conducting qualitative research, who, Coast et al. (2004)

suggest "may feel like they are walking a tightrope between the demands of economics and the demands of qualitative research".

The research presented in this thesis *has* attempted to walk this tightrope, engaging with the paradigms of both qualitative research and health economics. However, the research presented in this thesis also sought to try to enhance the relevance of economics to the real world. In doing so, the research attempted to see how the economic axioms could fit into the real world rather than challenge them directly.

Other attempts to utilise qualitative research within health economics have been discussed elsewhere in this thesis (specifically Sections 1.2.1, 3.3.2, and 3.4). As noted in Chapter 3 (Section 3.4), much of the qualitative research conducted by health economists has been used to explore and refine quantitative methods used in health economics and study the rationales of respondents to these. To the knowledge of the author, there is only one example of a health economist (McDonald, 2002) utilising qualitative techniques to understand the application of health economics in the context of decision-making in the health service. Other examples of qualitative research conducted in this area, notably Williams and Bryan (2007) and Patten et al. (2006), have been led by qualitative researchers.

On reflection, this thesis illustrates the potential for health economists to be able to undertake rigorous qualitative research, utilising multiple qualitative methods within health economics. Indeed, the thesis has sought to open up the possibility of further qualitative work by health economists by demonstrating that it can be done and how.

However, this has been no mean feat and has involved various challenges including: going back to the classroom to learn about qualitative methodology and methods in order to develop a meaningful theoretical perspective, acquiring a different disciplinary 'language', learning to be self-reflexive, and encountering criticism from colleagues questioning the credentials of a health economist using qualitative methods. and the value of this research to health economics.

Nonetheless, the research in this thesis adds to the small but growing body of rigorous qualitative research in health economics. If the use of qualitative research in health economics is to become more acceptable, it is essential that the qualitative research undertaken aims to be high quality. One test as to whether the discipline has evolved in its attitude toward qualitative research since Coast's paper in 2004, will be the publication of the findings from this thesis in a target journal for health economics.

7.6.2 Contributions to health economics

A large amount of research in health economics in the UK is concerned with economic evaluations and their use in health technology appraisals. In line with the formation of NICE, there has been a growing trend within economic evaluation (and cost-utility analysis in particular) to solve the problem of the lack of use of economics in healthcare decision-making by using sophisticated modelling and statistical methods to produce ever more precise ICER estimates. At the same time, there has been a need to develop new approaches to express these complex results to decision-makers – approaches which, to the cynical health economist, let alone a decision-maker, are practically unintelligible (Bryan et al., 2006). Moreover most of this research is concentrated at the national level. However, given that only a small proportion of healthcare services are

subject to such economic evaluations, that the uptake of NICE guidance based on these economic evaluations is patchy, and that decision-makers at the local level do not utilise economic evaluations, the value of this research is questionable.

The research presented in this thesis attempted to tackle the lack of use of health economics in healthcare decision-making from a different angle. The basic premise of the thesis argued that although economic methods are seemingly not used in healthcare decision-making it does not mean that economics *per se* has failed. Instead the emphasis of the research was on examining the use of economic principles more broadly, in managing scarcity in healthcare decision-making and observing the use of economic principles (through the vehicle of PBMA) in a real decision-making context. The research conducted in this thesis suggests that decision-makers are able to fully recognise notions that are central to health economics and their implications, but constraints in decision-making and disempowered decision-makers prevent economic principles being realised in practice. Nonetheless these are indications of the potential for PBMA (or something similar) to empower decision-makers in the management of scarcity.

Health economics still has some way to go if its methods are to be a viable aid to decision-making practice at the local level. Economics may provide a theoretically valid, 'rational', and systematic set of principles for conceptualising the management of scarce resources. But if economic methods are to have an impact on the management of scarce resources in 'real-life', the emphasis should be on integrating the principles of economics into a management process rather than expecting decision-makers to apply

the output of ever more precise, ever more complex health economic evaluations which cannot reflect the dominating and driving complexities of the decision-making process.

7.7 Limitations of the research

As discussed in Chapter 3, many of the limitations associated with this research can be equated with the criticisms aimed at qualitative research more generally. The main limitations encountered in this research are discussed below. These include limitations of the methods, analysis, and reporting, generalisability and going-native.

7.7.1 Limitations of methods, analysis and reporting

The limits of the methods are presented in detail in Chapter 3, Section 3.5.4. In terms of the specific limitations in this research, the samples for the interview were, as any sample is, self-selecting. Furthermore, participants' responses within the context of the interviews and focus groups represent the views that participants wanted to portray. In other words, the data generated through the interviews was constructed through the interaction between the interviewer and the participant. To some extent this was also applicable in the observation as participants may have modified their behaviour in response to the presence of an observer.

Indeed the large participatory element of this research will have had an impact on the data generated and the interpretations made from it. The research was being conducted for submission as a PhD (of which this thesis is the product) and therefore there was some effort made on the part of the researcher to ensure that the research would be

'successful'. Moreover, as a health economist, the researcher was also keen to try to fully explore the possibilities for the use of health economics in decision-making. In addition, the participation of a researcher in the organisation led some participants to perceive that the PBMA exercise required academic input (or indeed was entirely academic) and was therefore marginal to the other activities of the organisation and indeed the organisation.

The observation was also affected by the relationships between the researcher and those being observed. The researcher had a good relationship with the CE and some Heads of Service (indeed to the extent that these relationships are ongoing) whilst the close working relationship with the DPH, meant that, at times, this relationship became strained. Finally, the observation was further limited in terms of the scope of what could be realistically observed in the time and what could be recorded in the researcher diary at the time, or recalled when the diary was not present.

In terms of analysis and reporting, the results necessarily represent a single and partial perspective. Additionally, aside from the interview results, decisions were also taken to withhold some data from which individuals could be easily identified and that may have compromised the individuals concerned. There were therefore some restrictions in terms of what could be reported in the thesis.

7.7.2 Generalisability

The data upon which these results are based is specific to the north of England. This was intentional as the aim of the research was to study decision-making in depth by generating context specific data. Nevertheless, as emphasised in Chapter 3. generalisations from qualitative research can be made on the basis of theoretical or logical generalisations. In other words, concepts developed and inferred theoretically from the research can be applied to wider populations. From presenting the results in different contexts and to different audiences, and situating the research findings in the literature, it seems reasonable to suggest the broad findings from the schematic models of commissioning and the overarching discussion themes can be generalised to similar contexts where decisions about the allocation of scarce (or fixed) amounts of available resources have to be made. Furthermore, the methods and results are presented in depth in order to enable the reader to judge whether the findings might reasonably be expected to apply in similar settings.

7.7.3 Going native

In this research some mechanisms were put in place to prevent 'going native'. These included debriefing sessions between the researcher and the research supervisors, and working two days a week at the university. Nevertheless, maintaining a participatory role involved working long hours and taking part in social events outside of the organisation. As a result it was easy to become caught up in the day-to-day 'pressures' of working in the health service and lose perspective on the research at hand. In addition, the intense working and social relationships with some colleagues evolved into lasting friendships and ongoing professional relationships.

7.8 Implications for future research

There are a number of areas for future research that have arisen from the work presented in this thesis.

First, the schematic model of commissioning developed in Chapter 4, Figure 4.2, was based on the interview data generated from this research. In order to validate the model, further research would need to be undertaken in other PCTs to determine whether it applies elsewhere. Additional interviews would be needed to confirm or amend the themes in the model as necessary. Indeed, future research may wish to consider comparing the results and commissioning models generated from PCTs that are considered to be performing well with those that are not. Furthermore, it may also be interesting to repeat the interviews with the PCTs that initially took part in order to assess whether the model of commissioning since the original interviews in 2004 still stands.

Second, the PBMA process conducted in this thesis failed to identify substantial service disinvestments. There were a number of reasons put forward for this that are discussed elsewhere in this Chapter. However, it could be argued that achieving disinvestments is not the sole outcome of a PBMA process. As was illustrated in Chapter 6, elements of the PBMA process such as the formation of an Advisory Panel and the Stakeholder Group, and the development and weighting of criteria to underpin decision-making, were instrumental in achieving a more transparent, explicit and robust commissioning process. Nevertheless, the potential success of the PBMA process relies on being able to

identify disinvestments. A number of recommendations were discussed above in Section 7.4, including the use of incentives, focussing solely on programme budget areas, and using care pathways. Further research is required to evaluate these in practice. Moreover, this research should be conducted over a number of 'cycles' of PBMA in order to determine whether, as participants become more familiar and confident with the process, they are more willing to identify disinvestments. This is likely to be of growing relevance in the forthcoming fiscal climate of the NHS, despite recent surpluses.

Third, engagement in this exercise was restricted. However, those groups who were actively engaged in the process (the Advisory Panel and the Stakeholder Group) were enthusiastic about the process and their contribution to it. Future research should attempt to extend engagement to include providers (especially frontline staff) and patients or public in the process, the key being to place them in the position of the decision-maker acting under the conditions of resource scarcity.

Fourth, it has been shown in this research that the PBMA process has to be integrated with other approaches that PCTs have to adopt in commissioning (such as the LDP process as illustrated in this research), in order to avoid being perceived as an additional process which simply adds to the plethora of initiatives which PCTs are faced with. Such recent initiatives include the DH-led World Class Commissioning (Department of Health, 2007), and lean thinking (Jones and Mitchell, 2006). The first of these seeks to strengthen capacity and capability for commissioning and has identified a number of competencies against which PCTs will be assessed. The second, lean thinking, was

developed by Toyota and is being promoted within the NHS to eliminate waste. improve quality, and lower costs. There is ongoing work in the Commissioning Consortium at the focus of this research (since reconfigured), to utilise lean thinking within the PBMA process and future research to explore the extent to which PBMA can be used to develop the competencies outlined in World Class Commissioning.

This research has demonstrated the potential for PBMA as a vehicle for introducing economic principles into decision-making but further research, implementing some of the recommendations suggested in this thesis, is needed in order to continually develop and refine the process over time.

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List of Appendices

APPENDIX A. Interview information sheet

ref: pct_infosheet

Date

«Prefix» «FirstName» «LastName»
«Title»
«OrganizationName»
«Address»
«Address_2»
«Address_3»
«City» «PostalCode»

STUDY TITLE: Managing Scarcity

««GreetingLine»»

Having recently received ethical committee approval, you, along with other members of your Trust's senior management team, are being invited to take part in the above research study. The research is being funded by the Health Foundation and the ESRC and has been reviewed by all local PCT Executives as well as by the aforementioned funding bodies.

Before you decide to take part it is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Please do not hesitate to contact me if there us anything that is not clear or if you would like more information.

This study is designed to address what frameworks for priority setting are currently being used by PCTs in the commissioning process and whether a more systematic framework could be developed. The aim of this part of the research is simply to observe current decision-making practices within your Trust. This will involve face-to-face interviews between the researcher (Angela Bate) and yourself. At later dates, focus group sessions with the researcher and other members of the management team will take place and we will attempt to evaluate any developments which arise from this. All the information that is collected during this research will remain confidential. The audio tapes used for the interviews and transcription of these interviews will be kept in a secure location and destroyed once the study has been completed. For the purposes of dissemination, data will be aggregated and anonymised. Neither the transcribed data nor the results will identify participants by their role or PCT. Before you take part in the study you will be given this information form and asked to sign a consent form. It is up to you whether or not you decide to participate.

I have attached a calendar sheet for you to highlight the most convenient times when you are free to participate. The interview should take no longer than 1½ hours. If you require any further information or wish to discuss the project please do not hesitate to contact Angela on **0191 222 7045 (ext 3813)**.

Thank you for taking the time to read this letter.

Prof Cam Donaldson PhD
Health Foundation Chair in Health Economics and Public Service Fellow, ESRC Advanced Institute of Management Research

Angela Bate
Research Associate (Health Economics)

APPENDIX B. Pre-interview questionnaire

Pre-interview information sheet

This information sheet is designed to make you think beforehand about the some of the issues that may be addressed during the interview. It is also a useful way for us to collect certain pieces of information prior to the interview that may be required and referred to during the interview which, if otherwise collected during the interview, may interrupt the flow of conversation and lengthen the interview time.

Before the interview, we would therefore appreciate it if you could take the time to think about the priority setting process that goes on within your PCT and fill in the questions below that refer to specific parts of the priority setting process. Please try to give us as much detail as you can. There are no right or wrong answers. Please keep this in a safe place and it will be collected from you at the time of your interview.

For each question, please tick the appropriate boxes (as many as is necessary) and fill in any additional information. (continued over the page)

Q1. What sources of information are currently used in determining/identifying short and long term priorities in the PCT? Think about the types of information used to support priority setting decisions.

Key PCT objectives	☐	Which ones?	
Needs assessment	☐	Please specify	
Other reports	☐	Please specify	
National or SHA policy	☐	Please specify	
Epidemiological	☐	Published/local?	

APPENDIX B. Pre-interview questionnaire

Economic data	☐	Published/local?	
Other research studies	☐	Published/local?	
Medical opinion	☐	Please specify	
Public opinion	☐	Please specify	
Annual report	☐	How used?	
Utilisation info	☐	Please specify	
Demographic info	☐	Please specify	
Other	☐	Please specify	

APPENDIX B. Pre-interview questionnaire

Q2. How are decisions made to divide up the resources across the communities within the PCT (or various services within the community)?

Historical trends / patterns	☐	Please elaborate	
Perceived 'hot spots'	☐	Please elaborate	
Top down decision making (i.e. from ministers)	☐	Please elaborate	
Internal politics of local NHS organisations	☐	Please elaborate	
Provider needs	☐	Please elaborate	
Demands of local health care professionals	☐	Please elaborate	
National policies / targets / evidence	☐	Please elaborate	

APPENDIX B. Pre-interview questionnaire

Other political influence	☐	Please elaborate	
Human resources / other logistics within the NHS	☐	Please elaborate	
Whoever 'yells the loudest'	☐	Please elaborate	
Local opinion	☐	Please elaborate	
Other	☐	Please specify	

Q3. Can you please comment on how the current process of setting priorities and allocating resources could be improved?

Needs to be more explicit / systematic	☐	Please expand	
Needs better data / evidence	☐	Please expand	

Needs to take a longer term view	☐	Please expand	
Needs less provider influence	☐	Please expand	
Needs less political influence	☐	Please expand	
Needs to examine the margins, not total need	☐	Please expand	
Other	☐	Please specify	

Q4. How has the public been used in priority setting/ resource allocation processes?

They are not involved	☐	Please expand	
There is a regular process built into PCT structure	☐	Please expand	
Patient forum groups (eg PALs) input into process	☐	How often? Please expand	

APPENDIX B. Pre-interview questionnaire

There is an ad hoc, one off consulting	☐	Please expand	
Other	☐	Please specify	

Q5. Please can you use the following space to record any further information / details that relate to the above questions and any other issues that you would like to address during the interview?

Thank you for taking the time to fill out the questions. Please keep this in a safe place and it will be collected from you at the time of your interview.

Yours sincerely

Angela bate (research associate in health economics)

APPENDIX C. Interview consent form

Identification Number:

CONSENT FORM

Title of Project: Managing Scarcity.

Name of Researcher: **Angela Bate (Research Associate in Health Economics)**

Please initial box

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐

3. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent (if different from researcher)	Date	Signature
_____	_____	_____
Researcher	Date	Signature

APPENDIX D. Interview schedule

PCT Interview Schedule

Words in bold are topic headers. Questions are shaded and represented by Q and should be read out to the participant. *Words in italics are instructions for the interviewer.* Bulleted points are suggested responses that may require further probing to elicit.

Introductions. Present participants with information sheet (read out loud) and consent form. Reiterate issues of: confidentiality and anonymity, the purpose of the study, study funding, what is going to happen with data. Ask them to read and sign the consent form.

[ ] tape on
[ ] volume level

Information on role

Q1. Can we begin by you telling me a bit about what you understand of the terms priority setting and resource allocation?

Thank you. What I would like to focus on in this series of questions is the actual process of priority setting and resource allocation rather than the outcomes or results of the process – though examples of these are sometimes useful for illustrating a point,

Q2. I'd now like to know more about what your role is in terms of setting priorities and allocating resources in the PCT?

- Focus on process of commissioning
- Encourage them to be as specific as possible
- Probe for role in relation to priority setting

Description of current priority setting process

Q3. Can you describe for me the process that is currently used to identify local priorities for the PCT?

Probe for:

- Sources of information currently used in determining / identifying short and long term priorities in the PCT
- Types of information used to support priority setting decisions

Refer to the completed pre-interview sheet.

Q4. How are resource allocation/re-allocation decisions made within the PCT? (i.e. how much money goes where? / to different service areas? / or to whom?)

Probe for:

- Methods used to determine how resources are allocated between competing priorities

APPENDIX D. Interview schedule

- How are decisions made to divide up the resources across the communities within your PCT (or various services within your community)?

Refer to the completed pre-interview sheet.

Q5.	In practice, is the identification of priorities in the PCT a completely separate function from the production of the local development plan?

Clarify whether the LDP covers just their PCT or others within the SHA (which ones?)

- SHA wide / SHA priorities
- What are the implications of this either way?

Feedback on current process

Q6.	Do you think that the current process of setting priorities and allocating resources works well? Can you give examples of when the process has worked well/poorly or any strengths and weaknesses of the current process?

Probe for:

- Strengths and weaknesses of the current process

Q7.	Can you describe for me, in your own experience, how national work programmes impacted (positively or negatively) upon the local priority setting process?

These are: national services frameworks, NHS plan, NICE guidelines, NICE technology appraisals, waiting list and other initiatives, inequality targets, health strategies (e.g. HIV and sexual health strategy).

As much as is possible try to get them to identify specific national work programmes that either hinder or help the local process and also specific local priorities/initiatives forgone.

Probe for:

- How the PCT decides between local/national priorities
- Which takes precedence
- Extent to which national policy dictates the local priority setting process.
- To what extent national programmes render impossible the ability to plan locally and address local priorities.
- Whether funding and implementation of local priorities/ initiatives have been forgone / displaced specifically in order to implement nationally identified / dictated priorities.
- Whether local priorities forgone may have been more or less beneficial / worthwhile to the communities within their PCT.

APPENDIX D. Interview schedule

Improving the priority setting process

Q8.	How can the current process of setting priorities and allocating resources be improved?

Refer to the completed pre-interview sheet.

Probe for:

- Specific examples.
- How they would result in improving the process.

Q9.	Which types of information (or data or evidence) would you most want to use that you feel could improve decision making in setting priorities and allocating resources?

Probe for:

- The value they see in these pieces of information.
- How they would use these pieces of information? (i.e. how would these be used/in what ways would they improve the decision-making process?)
- Capacity to deal with/critically assess information and information systems capacity.

Barriers/incentives to improving/changing the process

Q10.	What barriers are faced/encountered in undertaking the priority setting process within the PCT?

Probe for:

- What barriers they face.
- What barriers the organisation faces.

Q11.	More specifically, what barriers are faced/encountered when re-allocating resources from one service area to another?

Probe for:

- What barriers they face.
- What barriers the organisation faces.

In both cases focus on:

- Organization and professional boundaries / and / or barriers
- Time to make decisions
- Recording and presenting of financial information

APPENDIX D. Interview schedule

Q12. You are probably aware that recent discussions in the literature have centered around the importance of incentives in engaging decision makers in an explicit priority setting process. What specific types of incentives could be put in place that might improve participation in an explicit priority setting process [which has at its core the notion of re-allocation of resources]?

Probe for:

- Organisational level incentives at a general level and specific to their organisation.
- Personal level incentives.
- Engaging at the across the primary / secondary care interface

Engaging the public/incorporating community values

Q13. How has the public been used in priority setting/ resource allocation processes in the past?

Refer to the completed pre-interview sheet

Q14. What information is important to get from the public?

- How do you deal with / handle this information
- What about patient forums – where do they fit into the process?

Q15. Ideally, how would you want the public to be involved in the priority setting/ resource allocation process?

Reflection on overall process

Q16. Overall, is the current process of setting priorities and allocating resources fair and transparent?

Q17. Academics working in the area of priority setting in Canada have developed a framework for evaluating priority setting decisions called accountability for reasonableness. The premise of this framework is that an institution's priority setting decisions may be considered fair if they satisfy four conditions: publicity, relevance, appeals and enforcement.

Hand the participant card 1.

How do you think these concepts relate to the current priority setting process undertaken within the PCT?

APPENDIX D. Interview schedule

Final remarks

Q18. Is there anything else you want to add that we haven't covered?

- Role of the SHA
- Role of the PEC
- Impact of new initiatives (foundation hospitals bill, patient choice agenda, financial flows) on local process

Close interview. Thank respondent. Offer reassurance that all responses will be held in confidence and neither the role of the participant nor the name of the PCT will be identified in dissemination of results.

APPENDIX E. Plan of PBMA research and timetable

THE COMMISSIONING CONSORTIUM: INTRODUCING PBMA

SUMMARY:

The remit for the Commissioning Consortium PBMA is outlined below:

- **Overall aim:**
  - To develop and implement a priority setting framework for the commissioning consortium
- **Specific objectives:**
  - To prioritise options for investment in services to meet national, consortium and local PCT targets
  - To prioritise options for resource release in order to reduce the financial deficit across the consortium
  - Using the above to inform the development of the consortium LDP and SLAs for 2005/6

In order to achieve the above, the PBMA exercise has been developed into 7 stages to be completed between September 2004 and January 2005.

- **Stage 1: determine and define the scope and boundaries of the exercise.**
  - 1. Form PBMA Advisory group
  - 2. Agree scope of exercise
  - 3. Agree focus and data inputs
- **Stage 2: construct a programme budget (PB).**
  - 1. Data collection for PB matrix
  - 2. Assimilate PB data
  - 3. Construct first draft of PB matrix
  - 4. Finalise PB matrix
- **Stage 3: determine locally relevant decision-making criteria.**
  - 1. Identify sample criteria and weighting methods
  - 2. Assimilate and agree draft criteria
  - 3. Consult advisory panel
  - 4. Consult PEC chairs
  - 5. Advisory panel to finalise criteria
  - 6. Undertake weighting exercise with PEC members
  - 7. Finalise weights
  - 8. Construct business case template
- **Stage 4: advisory panel to identify ranked options.**
  - 1. Identify services within PB (scoping) matrix
  - 2. Gather supporting evidence
  - 3. Construct (identify) business cases to be submitted in standardised form
  - 4. Advisory panel meeting to produce ranked short lists
- **Stage 5: initial validity check.**
  - 1. PECs to undertake own scoring exercise
  - 2. Advisory panel scores to be presented at CAG meetings, Board meetings for comment and suggested revisions with justifications to be submitted
- **Stage 6: advisory panel to finalise resource shift recommendations.**
  - 1. Finalise revision of ranked shortlists (based on PEC scoring and feedback)
  - 2. Combine investment and resource release shortlists
  - 3. Produce final balance sheet maintaining financial balance and reducing deficit
  - 4. Produce implementation plan with timescale
- **Stage 7: validity checks and final decisions.**
  - 1. Consultation with relevant stakeholders
  - 2. PCO Boards approval
  - 3. Incorporation into and submission of LDPs

APPENDIX E. Plan of PBMA research and timetable

INTRODUCTION

Consortium and SHA 'Vision' documents outline a 'whole system' approach to commissioning and service delivery which incorporates notions of:

- value for money;
- cost-effective solutions;
- having to make significant investments which imply 'efficiencies' and, perhaps, reductions in some services; and
- treating all proposed developments and reductions fairly

This requires a commissioning prioritisation framework which recognises that resources are scarce and not all health care needs can be met, will lead to an efficient and integrated system, while having the flexibility to engage clinicians and incorporate public views and political considerations. Programme Budgeting and Marginal Analysis (PBMA) offers such a framework. This document outlines how PBMA fits with the Consortium and the steps involved in a PBMA-supported commissioning process.

WHAT IS PBMA ...

... *In Theory*

- The approach embodies two fundamental economic principles central to the notion of resource scarcity: ***opportunity cost*** and ***marginal analysis***.
- ***Opportunity Cost*** = the benefit lost from choosing to invest resources in one option over the next best opportunity. Every time we choose to use resources to meet one need we give up the 'opportunity' to use those resources to meet some other need. The aim of economics is to ensure that we choose to invest resources in those activities whose benefits outweigh their opportunity cost. The primary goal of priority setting should be to maximize the benefits gained by choosing to do the most beneficial things with the resources at our disposal or, if in a deficit situation, minimize the benefits lost when cutting back or re-deigning services.
- ***Marginal Analysis*** = the additional cost associated with producing an additional unit of output. The marginal benefit is the additional benefit gained from this additional unit of output. In shifting resources between options, examining the marginal costs and benefits provides insight into whether the changes will result in overall increases in benefit and therefore whether they should, in theory, take place.
- Incorporating these principles, the starting point for the framework is to identify how resources are currently used and then assess whether changes in the mix of services provided could potentially result in improved overall benefit to the population. This involves, as far as possible, assessing the costs and benefits of proposed changes in the delivery of health care and, on the basis of this information, changing the way services are delivered if it is thought that benefits to the community will be increased.

... *In Practice*

- PBMA is a framework that assists decision-makers in directing resources in order that the impact of health care on the health needs of the local population is maximised.
- It can aid decision-making in terms of identifying which services to fund by explicitly comparing alternative uses of the limited resources available.
- It is a hands-on approach that does not take place in isolation from other managerial activities and processes. It can be carried out alongside needs assessment and involves examination of

published evidence (including of relevant literature; research projects), the input of local data, the views of the public and local knowledge and expert opinion of managers and clinicians.

- It is not a static template but an evolving process, implemented in order to fit with the organisational structures of PCOs.

HOW TO DO PBMA ...

... In Theory

The PBMA framework poses 5 key questions:

1. What is the total amount of resources available? (PB)
2. How these resources are currently spent (and how does the pattern of spending fit with activity and objectives)? (PB)
3. What services are the main candidates for receiving more resources ('wish-list' of [new] [clinical] service developments and changes) (and what are the costs and benefits associated with these expansions)? (MA)
4. Can any existing services be provided as effectively with fewer resources (thus becoming more technically efficient) in order that some of the 'wish-list' items can be realised? (MA)
5. If technical efficiency improvements are not possible or are saturated, are there any services that should receive fewer resources because they are less effective per £ spent than some services on the 'wish-list' (thus minimising opportunity cost)? (MA)

- The first two questions are the focus of the programme budget (PB), the premise of which is 'how can we know where we are going if we don't know where we are?' The level at which this is produced can be either **within** 'care streams'/'programmes of care' or **across** 'care streams' (e.g. macro-allocations across the consortium).

- The remaining three questions form the process of marginal analysis (MA) which examines whether/how marginal changes in health gains can be achieved through changes in the way resources are spent. Altering the mix services to improve both efficiency and equity in the chosen care stream or service area may enable the top priority initiatives to be implemented.

- The depth of detailed data required for the PBMA process will vary. The pragmatic approach adopted within PBMA is to use multiple sources of information (including both published evidence and the knowledge and experience of local managers and providers). At the core of the process an expert panel working group is responsible for making comparative judgements between development options and proposing recommendations for maximising benefit for the given population.

... In Practice

The remit for the Commissioning Consortium PBMA is outlined below:

- **Overall aim:**
  - To develop and implement a priority setting framework for the commissioning consortium
- **Specific objectives:**
  - To prioritise options for investment in services to meet national, consortium and local PCT targets
  - To prioritise options for resource release in order to reduce the financial deficit across the consortium

- Using the above to inform the development of the consortium LDP and SLAs for 2005/6

In order to achieve the above, the PBMA exercise has been developed into 7 stages to be completed between September 2004 and January 2005.

- **Stage 1: determine and define the scope and boundaries of the exercise.**
  Steps:
  - **1. Form PBMA Advisory group - *completed***
  - **2. Agree scope of exercise - *agreed***
  - **3. Agree focus and data inputs – *agreed***

(1) The PBMA exercise is to be conducted at the macro level of the commissioning consortium. The advisory group steering this exercise for year one should therefore be the Consortium Commissioning Board (CCB).

(2) (3) Since the consortium is the focus of the exercise it follows that the boundaries should be confined to its commissioning functions i.e. commissioning in relation to secondary care excluding the Ambulance Trust, and Primary Care. The scope for the programme budget is therefore the programme budget data from all 3 PCOs and any appropriate local authority data and commitments. The scope of the marginal analysis is primarily to look at performance target areas as areas for investment and redesign (how target areas are currently performing and what the new national targets are - where targets are not being or likely to be met, where they are (or maybe) being met but inefficiently, and where they are (or maybe) being met efficiently and in excess) and focus on non-target areas for possible resource release through service reduction or redesign. We also need to take into account any current implications for future spending such as possible future targets (Inequality targets, GMS/Dental targets), Local PCT priorities, and LDP commitments for investment: year 3 of the current LDP, and new policy (national tariff/payment by results).

- **Stage 2: construct a programme budget (PB).**
  Steps:
  - **1. Data collection for PB matrix** *(15/09/04 – 08/10/04)*
  - **2. Assimilate PB data** *(11/10/04 – 15/10/04)*
  - **3. Construct first draft of PB matrix** *(18/10/04 – 19/10/04)*
  - **4. Finalise PB matrix** *(21/10/04 – 22/10/04)*

(1) (2) (3) (4) The PB is a map of current activity and expenditure. This should draw together cost data based on 23 programme budget statutory returns (activity driven) and incorporate activity data (primarily admissions). Any other relevant information (payment by results matching exercise, Stuart Wooler's exercise, SLA review?) should also be reviewed and included.

- **Stage 3: determine locally relevant decision-making criteria.**
  Steps:
  - **1. Identify sample criteria and weighting methods** *(15/09/04 – 20/09/04)*
  - **2. Assimilate and agree draft criteria** *(21/09/04)*
  - **3. Consult advisory panel** *(22/09/04)*
  - **4. Consult PEC chairs** *(23/09/04 - 28/09/04)*
  - **5. Advisory panel to finalise criteria** *(29/09/04)*
  - **6. Undertake weighting exercise with PEC members** *(04/10/04 – 08/10/04)*
  - **7. Finalise weights** *(before 1st advisory panel meeting)*
  - **8. Construct business case template** *(21/10/04 – 22/10/04)*

APPENDIX E. Plan of PBMA research and timetable

(1) (2) (3) (4) (5) Criteria are to be generated from discussions with PCT commissioners and PEC chairs, previous local PCT prioritisation exercises, any other priority setting exercises (identified from the literature/service examples), and other PBMA exercises.

(6) (7) Once they are agreed they need to be weighted – assigned a numerical weighting that denotes the relative importance of each in prioritisation decisions. Ideally the weighting exercise would be conducted with all relevant stakeholders however given time limits the weights for this first years exercise will be obtained from PEC members for all 3 PCOs. The average weights obtained from this exercise will be finalised by the advisory panel.

(8) The criteria will form the basis of a standardised business case used to support service developments and changes.

- <u>Stage 4: advisory panel to identify ranked options.</u>
  Steps:
  - **1. Identify services within PB (scoping) matrix** *(25/10/04 – 12/11/04)*
  - **2. Gather supporting evidence** *(25/10/04 – 12/11/04)*
  - **3. Construct (identify) business cases to be submitted in standardised form** *(12/11/04)*
  - **4. Advisory panel meeting to produce ranked short lists** *(TBC: 01/12/04)*

  (1) PECs, PCTs and advisory panel members will be asked to individually identify options for prioritisation. Options should be identified in terms of areas for investment, areas for redesign (i.e. resource release through efficiency savings), and areas for resource release through scaling back services. This is primarily done by 'eyeballing' the PB matrix that may highlight specific areas, and by focussing on the target and non-target areas (as set out in the scope above).

  (2) Each option (including PEC/PCT-generated options) needs to be accompanied by any supporting information (gathered from projects and other materials papers or projects that within the organisation, Medline, Government publications and relevant Royal College Publications, expert opinion etc), and accompanied by a breakdown of the associated costs (or cost savings) and an outline of the specific benefits (as judged against the pre-defined criteria). A support pack containing some relevant information and links to appropriate sources will be provided.

  (3) Each option needs to be presented in a standardised format (using the standardised business case template). It may be that business cases already exist for some of the options that will be identified in which case these will need to be translated into the new standardised business case. These should then be submitted to the Director of Epidemiology who will be responsible for collating these and incorporating any other relevant information prior to the 1st advisory panel meeting.

  (4) The advisory panel meeting will serve as a forum for discussion of each of the options put forward in the business cases. The group should brainstorm for any additional options and review each one to assess whether there is realistic potential for these to be implemented and (in the case of a resource release option) resources released. Each option should then be ranked to produce ranked lists of options for investment and options for resource release. Ranking of options should be conducted using the pre-defined weighted criteria and costs which can be used to calculate cost/benefit ratios. Where rankings are over-ridden, the reason is noted, and may form a new criterion to be used in the process in the future. The aim of stage 4 is to identify costed options which are of highest priority through to those of lowest priority, in a rank order. Ranked shortlists of potential options for investments and resource release along with their associated costs and benefits (or consequences) should be produced at the end of this stage.

- <u>Stage 5: initial validity check.</u>
  Steps:
  - **1. PECs to undertake own scoring exercise**
  - **2. Advisory panel scores to be presented at CAG meetings, Board meetings for comment and suggested revisions with justifications to be submitted**

APPENDIX E. Plan of PBMA research and timetable

(1) Each PEC will be asked to consider each of the Business Cases with reference to the Advisory Panel scorings and score them to produce their own ranked shortlists (similar process as illustrated above).

(2) Clinical Advisory Groups and Boards will be asked to review the ranked shortlists noting the costs and benefits (consequences) of the options to ensure that the options proposed are reasonable and/or achievable. Any revisions made to the ranked shortlists must be justified.

- **<u>Stage 6: advisory panel to finalise resource shift recommendations</u>.**
  Steps (all to be undertaken at Advisory Panel meeting 2): ***(TBC 15/12/04)***
  - **1. Finalise revision of ranked shortlists (based on PEC scoring and feedback)**
  - **2. Combine investment and resource release shortlists**
  - **3. Produce final balance sheet maintaining financial balance and reducing deficit**
  - **4. Produce implementation plan with timescale**

(1) (2) The panel will consider the funding of options for investment through new resources (though this may not be possible), funding options for investment through resources released from options where efficiency savings have been identified, and finally funding options for investment from resources released from options where there may be opportunity to scale back or stop services. Following any revisions to the lists, each option for investment should be considered separately and explicitly weighted against each resource release option. This process (of considering the investment options in turn) should continue until it is thought that no more reallocations from potential options for resource release to options for investment are worthwhile.

(3) An overall summary table should be produced with recommendations either for service delivery re-design or maintenance of the status quo, in the form of a balance sheet (i.e. showing how planned developments and releases maintain financial balance in the organisation).

(4) An implementation plan for actioning these changes should be produced, with milestones.

- **<u>Stage 7: validity checks and final decisions.</u>**
  Steps:
  - **1. Consultation with relevant stakeholders**
  - **2. PCO Boards approval**
  - **3. Incorporation into and submission of LDPs** ***(31/01/05)***

(1) The recommendations and implementation plan should be discussed with the relevant stakeholders to determine if some items cannot stand for potential release (and the factors and steps to mitigate this must be identified).

(2) (3) Recommendations should be made to the relevant boards for approval and linked to LDP sign-off with each PCO Board, and these should be then incorporated into the relevant LDPs.

APPENDIX F. Focus group schedule

Heads of Service Focus Group

01/02/05 **Commissioning Consortium**

[ ] tape on
[ ] volume level

- *Explain reason for the focus group:*

- to try to pick up any positive and negative issues or concerns around:
- completing the business cases
- the future of PBMA or other prioritization processes in the organization

- *Reiterate issues of: confidentiality and anonymity, the purpose of the study, study funding, what is going to happen with data.*
- *Explain the rules of the focus group*

- *Ask everybody to introduce themselves for the tape*

Experience

Q. What were your expectations of this process?

Q. Were these expectations met?

Engaging with and improving the PBMA experience

Q. What were the positives and what were the problems?

- Barriers
- Does it achieve its objectives?
- Information (what are the information requirements)
- What about support?
- Process of filling in business cases – specific problems relating to these (title, information required, costs data, benefit scoring, criteria)
- Process more widely – integration with LDP
- Interaction/integration feedback from senior members
- Can this work?

Q. What about the extent of any patient/clinician involvement?

APPENDIX F. Focus group schedule

PBMA and the future

Q. What needs to be done to make the whole process easier/work?

- How would they see this developing in future – ideally and practical improvements/changes
- How would they do things differently? What would they keep?
- Do they have a final message for me/for the CE Final/any body who is thinking of implementing something similar?

Final remarks

Q. Is there anything else you want to add that we haven't covered?

- *Close conversation.*
- *Thank participants.*

- *Offer reassurance that all responses will be held in confidence and neither the name nor specific role of the participant will be identified in dissemination of results.*

Pulling conversation back on track:
- How do you think that this relates to X … ?
- So, do you perceive X to be a barrier … ?

Use of round robin:
- If some people are talking too much – formulate a Q and ask everybody for their response
- To break the pace or direction of the conversation
- To get conversation started

Eliciting different opinions (rather than 'group speak')
- Does anybody have a different experience of X … ?
- Is there another way of thinking about this / can you think of it differently?

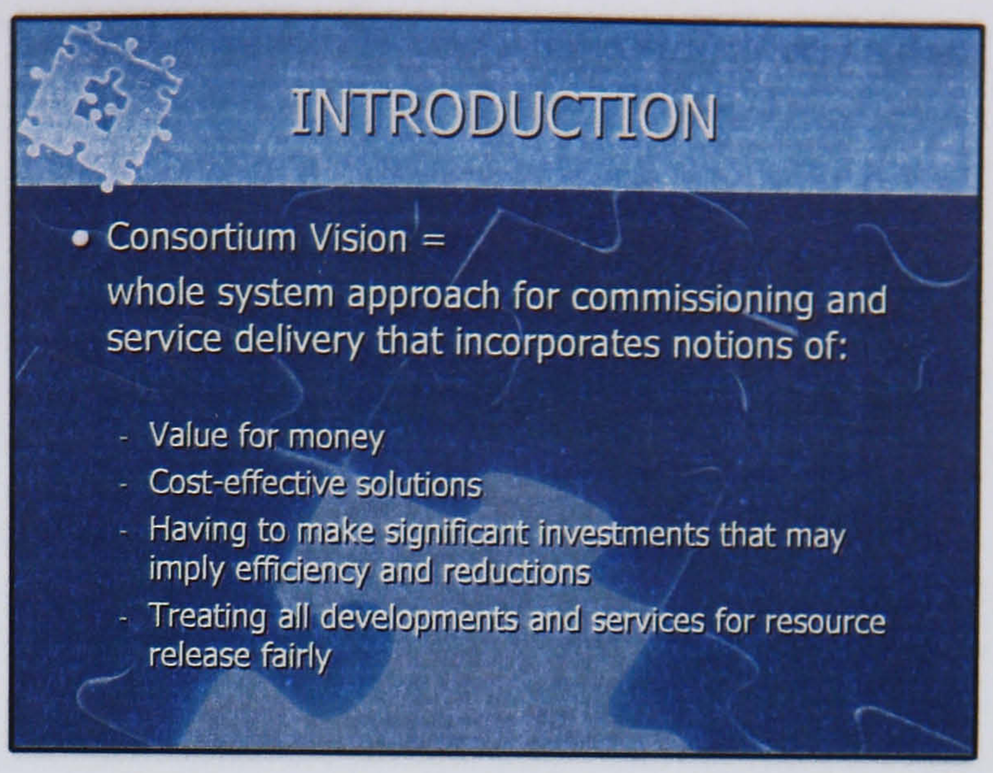
During and After:
- Write notes about what has gone on during the FG: note any power relationships, conflicts, oddities.
- Try and get a sense of who is saying what
- Sanctioning of transcript: allow participants the opportunity to look over the transcripts as an accuracy check. At this point if there are any phrases or statements that they said that, in retrospect, they wish they hadn't, give them the opportunity to delete these.

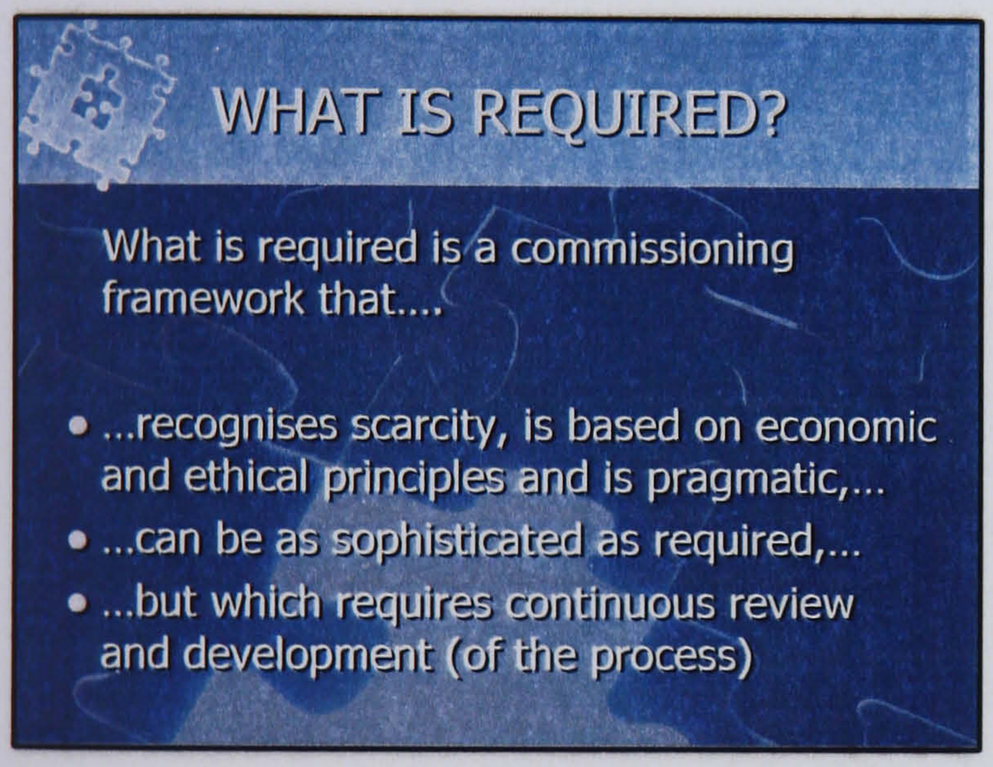
APPENDIX G. Transcription notation

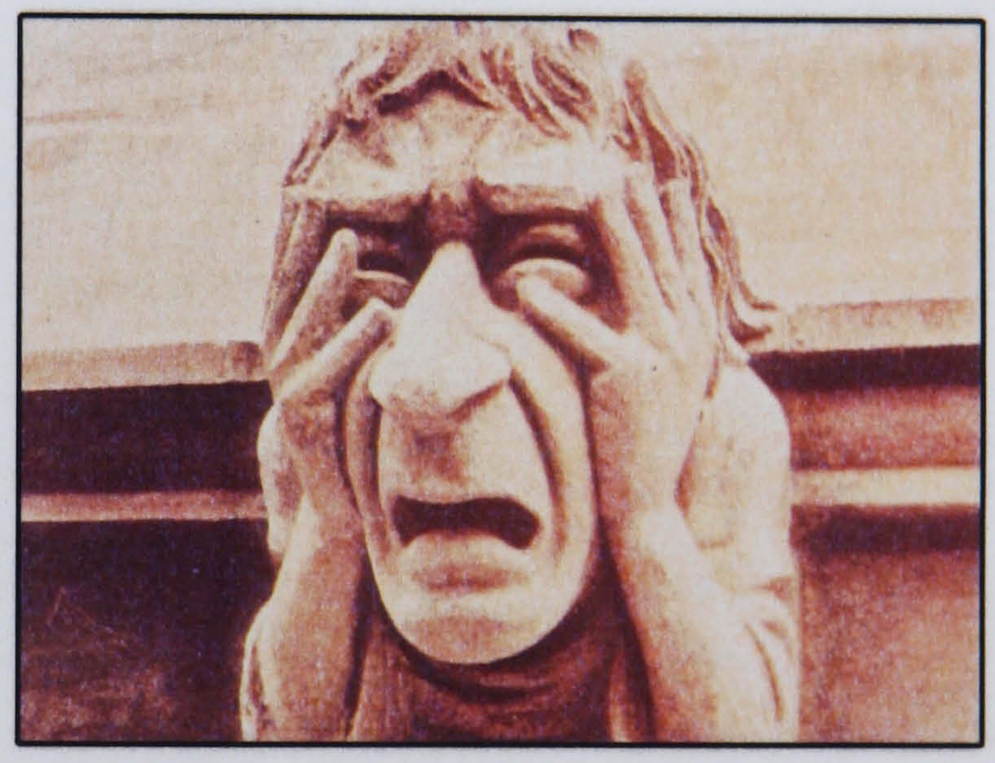
Transcription notation for the rough transcription

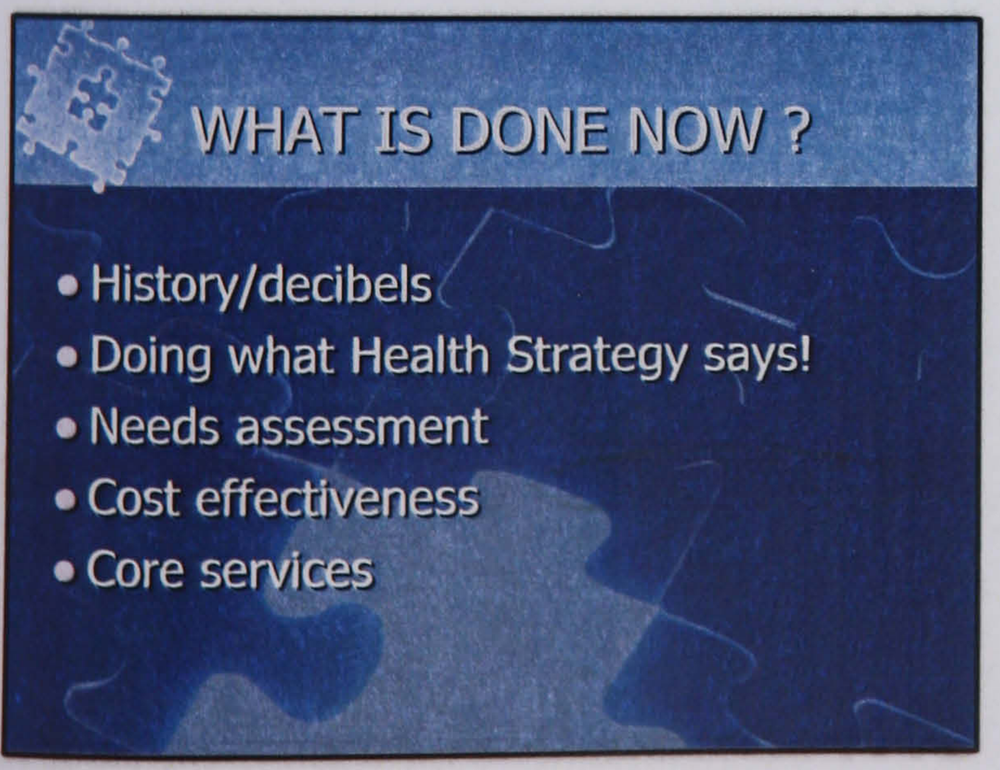
SYMBOL	SIGNIFICANCE
’	Slight rise (more is expected)
..	Pause of less than .5 of second
…	Pause of more than .5 of a second
=	Overlap
( )	Unclear word
(did)	Guess at unclear word
[clears throat]	non-speech, vocal and non-vocal, which interrupts speech

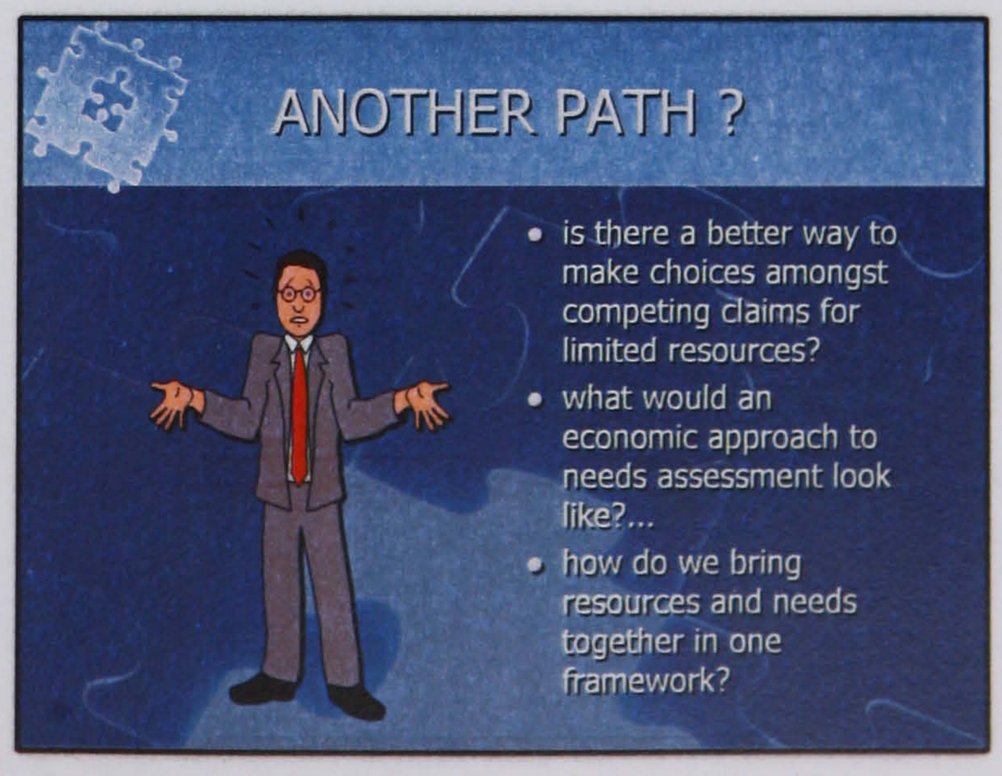
APPENDIX H. Introductory PBMA presentation











APPENDIX H. Introductory PBMA presentation

THE DILEMMA

Resources

Claims on resources:
- needs
- demands

ECONOMICS !

- Resources are scarce
- Choices must be made
- Opportunity cost for every decision
- Margin leads to change & *re*-allocation

OPPORTUNITY COST

Resources are scarce.

We have to make choices.

Every time choose to use resources to meet one need, we give up the "opportunity" to use those resources to meet some other need.

The benefits associated with the best alternative use of the resources is the

OPPORTUNITY COST

The aim of economics is to ensure that we do those activities whose benefits outweigh their opportunity cost (i.e. we do the most beneficial things with the resources at our disposal).

MARGINAL ANALYSIS

- *the margin:*

marginal cost	=	cost of one more unit of output.
marginal benefit unit of	=	benefit from one more output.

IMPLICATIONS OF OPPORTUNITY COST AND MARGINAL ANALYSIS

- to do more of some things, we have to take resources from elsewhere, by either:
  - doing the same things at less cost; or
  - taking resources from areas of (effective) care
- measure costs and benefits of health care
- often about <u>how much</u> rather than <u>whether</u>

PBMA

- Framework assists in directing resources so impact of health care on health needs of pop^{n} is maximised
- Explicit consideration of opportunity costs and incorporates notion of changes in resource use
- Aids comparison of alternative uses of limited resources available
- Decisions based on locally defined criteria
- Hands-on and requires multiple inputs to support decisions

APPENDIX H. Introductory PBMA presentation

PBMA soundbites

"Prioritisation of health service delivery is a process that should systematically, explicitly and transparently define the use of resources for maximising health gain. This implies little consideration of distributional issues. However, priorities can be set incorporating an equity-efficiency trade-off. The process should be principle-based and value-driven, using robust methodologies that take account of proven instruments for cost-utility analysis and guided by informed judgement. PBMA offers an approach for DHBs. "

Ministry of Health (2000) Health Needs Assessment for New Zealand

PBMA soundbites

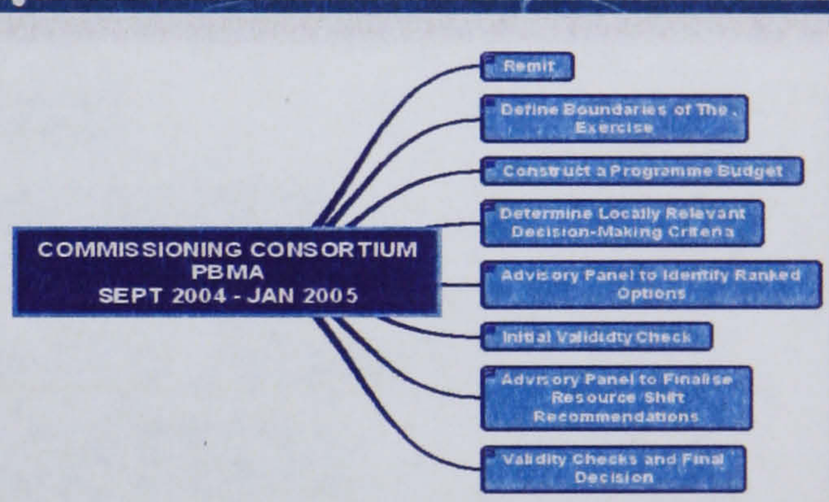
"Effective purchasers need programme budgeting and marginal analysis"

Enthoven A (1999) *In Pursuit of an Improving National Health Service.* Nuffield Trust, London.

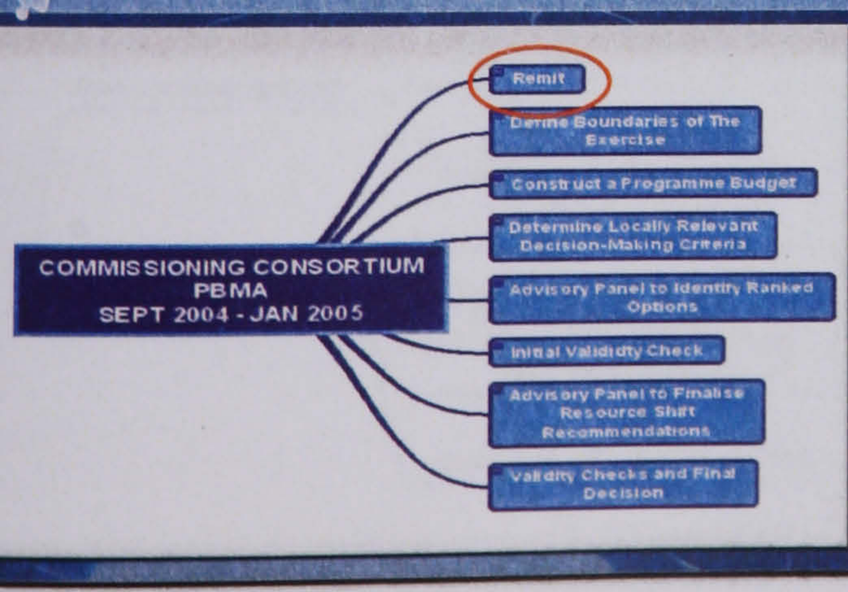
HOW TO DO PBMA

1. What is the total amount of resources available?
2. How are the resources currently spent (and how does pattern of spending fit with activity and objectives)?
3. What services require more resources (and what are the costs and benefits of these expansions)?
4. Can any existing services be provided as effectively with fewer resources in order to fund those in 3?
5. Are there any services that should receive fewer resources because they are less effective per £ spent than some services proposed in 3?

PBMA IN PRACTICE



THE REMIT



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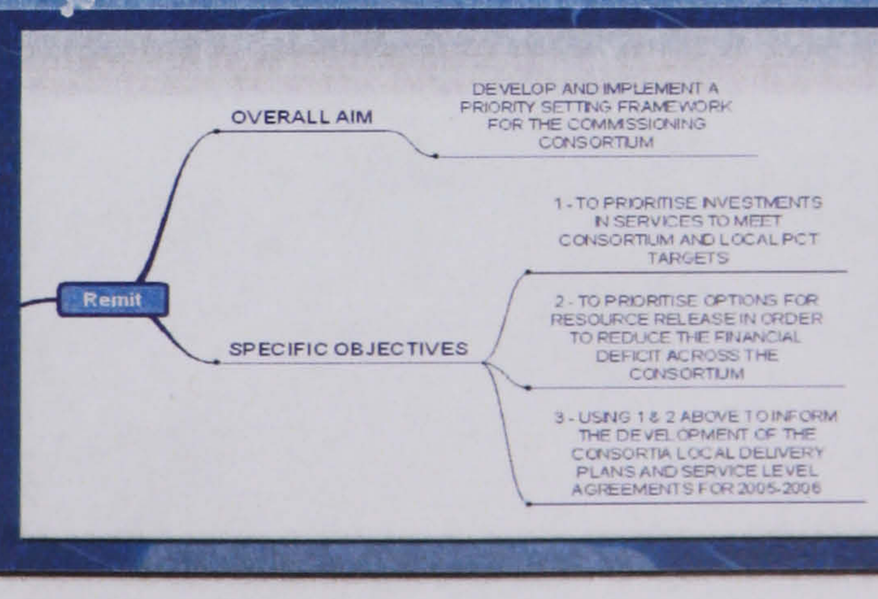
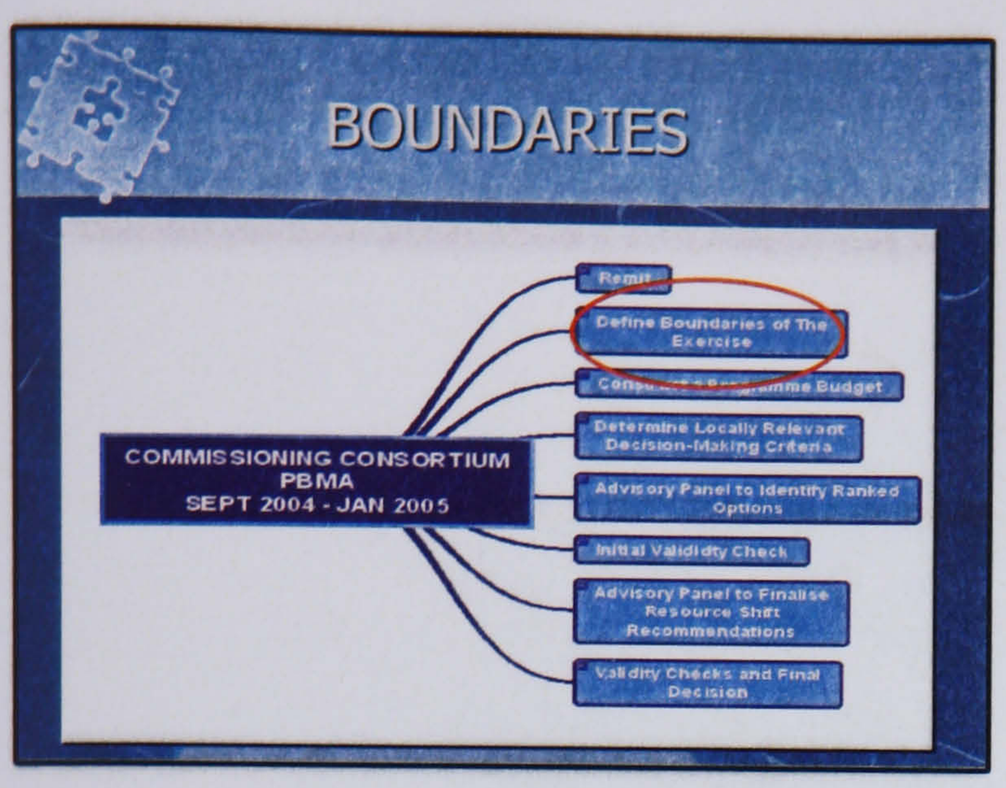
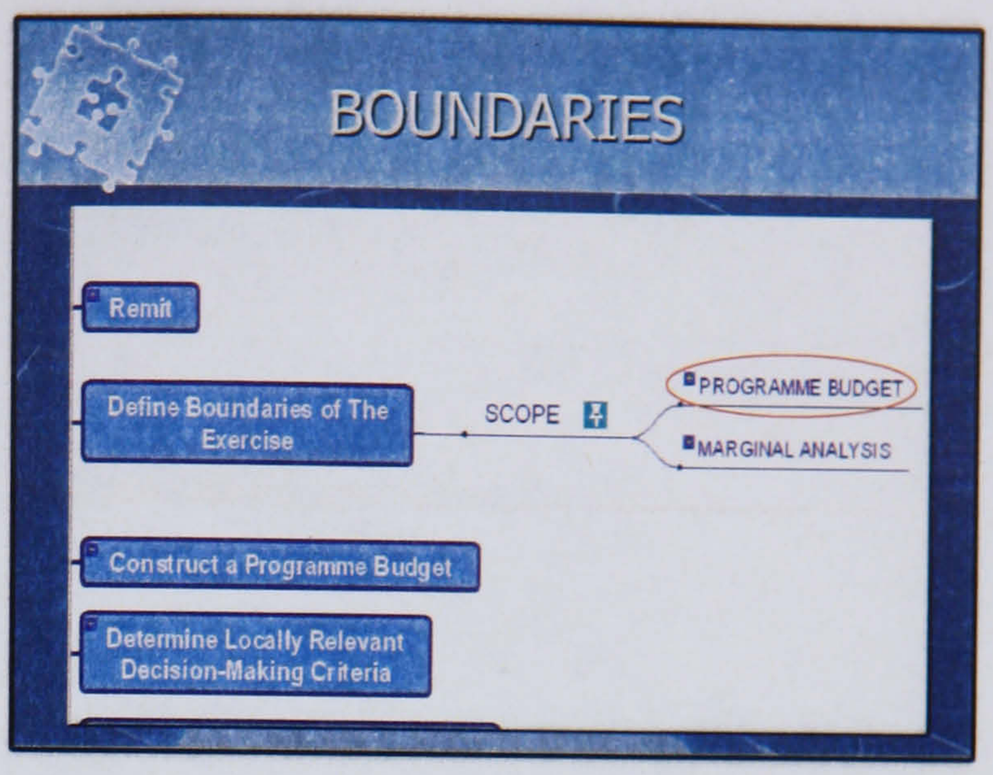
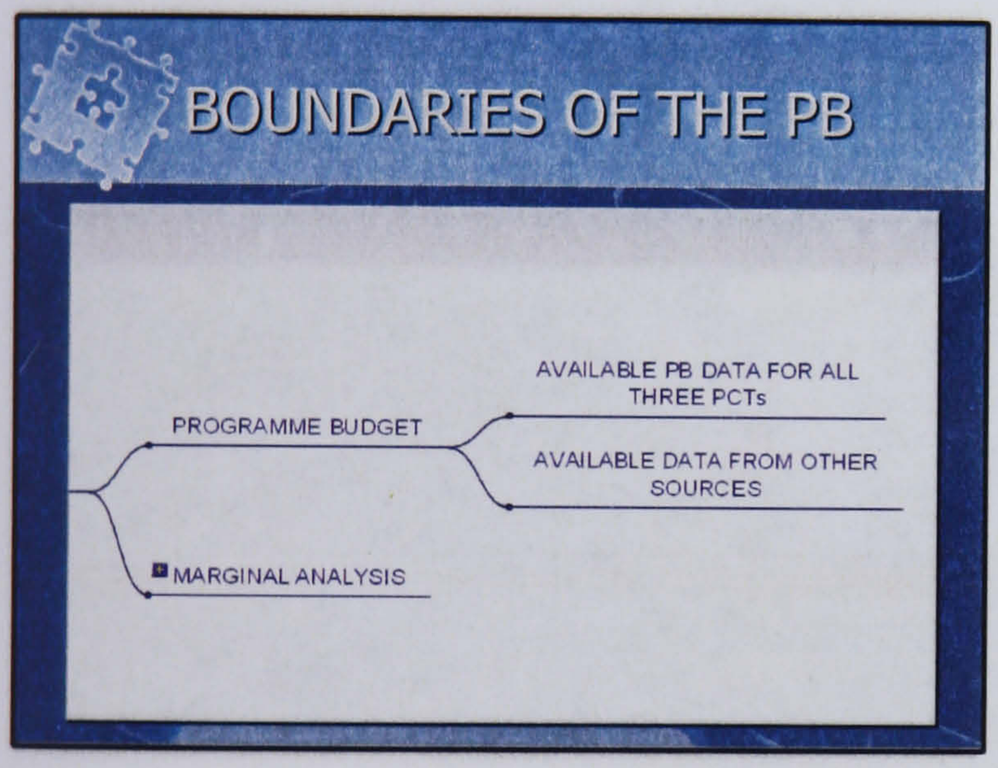
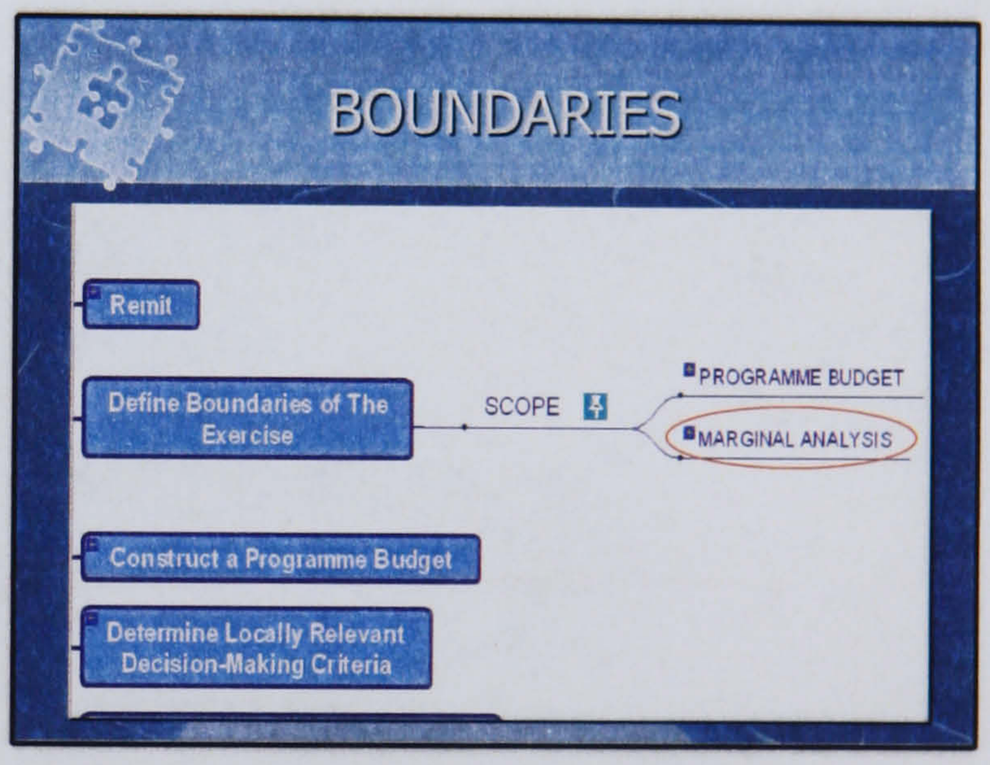


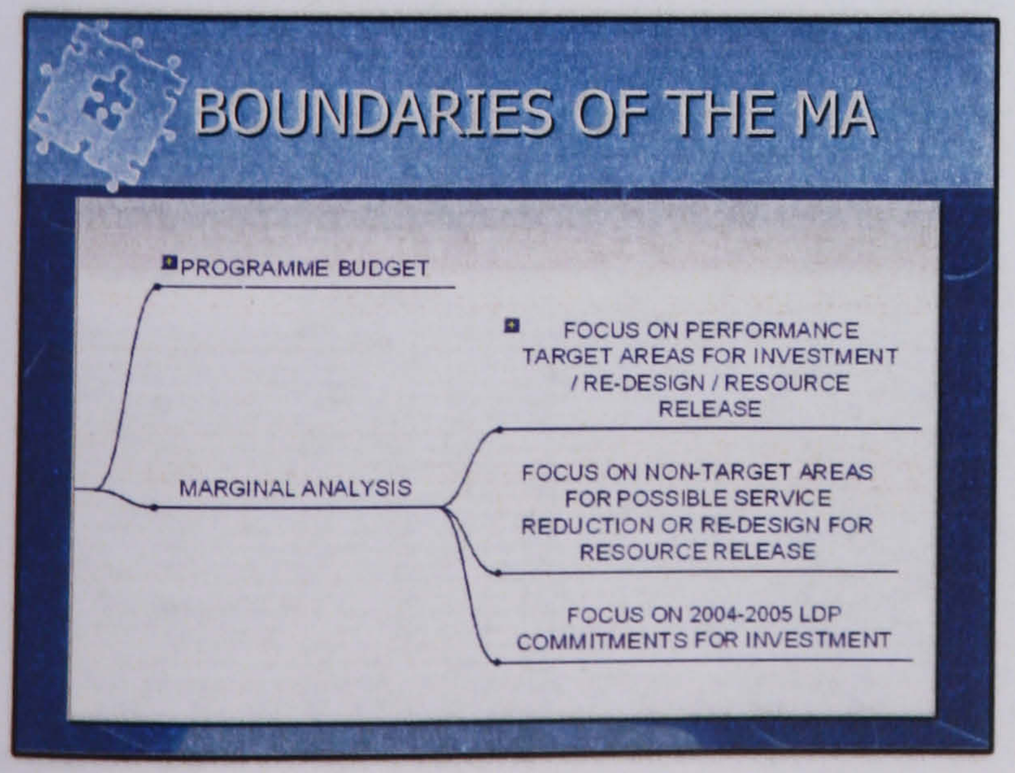
APPENDIX H. Introductory PBMA presentation

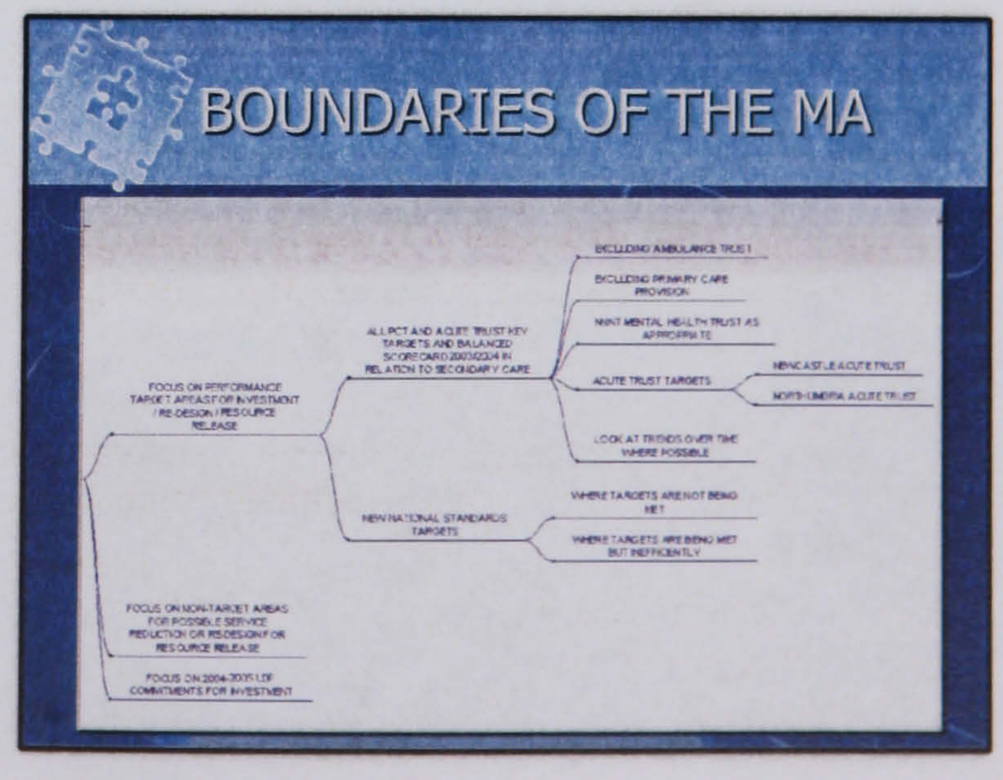












APPENDIX H. Introductory PBMA presentation

CONSTRUCTING THE PB

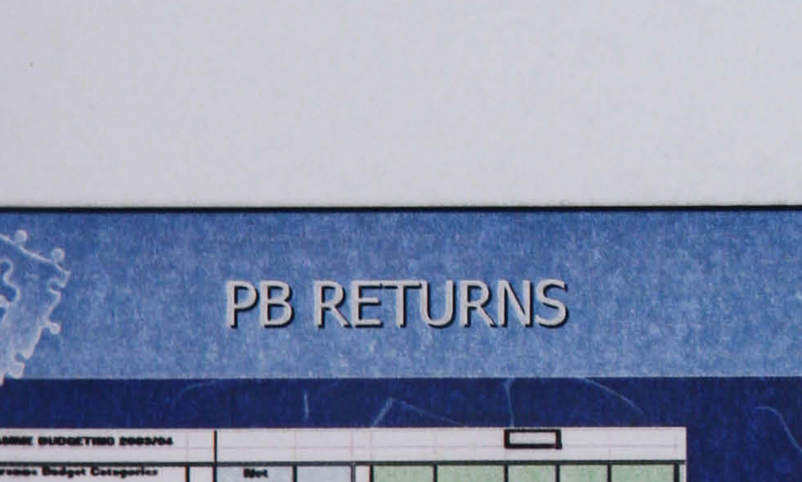
COMMISSIONING CONSORTIUM PBMA
SEPT 2004 - JAN 2005

- Remit
- Define Boundaries of The Exercise
- Construct a Programme Budget
- Determine Locally Relevant Decision-Making Criteria
- Advisory Panel to Identify Ranked Options
- Initial Validity Check
- Advisory Panel to Finalise Resource Shift Recommendations
- Validity Checks and Final Decision

CONSTRUCTING THE PB

- Define Boundaries of The Exercise
- Construct a Programme Budget
  - DATA COLLECTION FOR MATRIX
    - 23 PROGRAMME BUDGET STATUTORY RETURNS
    - ACTIVITY DATA FOR ALL 23 PBs
    - SLA REVIEW FOR NPCT
    - STUART WOOLLER'S REVIEWS ENT/ORTHO
  - ASSESS, AGREE, AND ASSIMILATE DATA
  - CONSTRUCT FIRST DRAFT PB XLS MATRIX
  - PRESENT TO ADVISORY PANEL
  - FINALISE XLS PB MATRIX
- Determine Locally Relevant

WHAT IS A PB?



CONSTRUCTING THE PB

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PB RETURNS

PROGRAMME BUDGETING 2003/04

Programme Budget Categories	Note	Net Operating Costs £000	%	SUTHT £000	SWB/SWLP £000	N PCT £000	NEAS £000	Others £000
Infectious Diseases	1	5,629	1.73	2,514				-107
Cancers & Tumours	2	20,242	6.23	15,455				1,519
Blood Disorders	3	4,278	1.32	3,291			237	2,439
Endocrine, Nutritional and Metabolic Problems	4	5,809	1.79	1,251			5	202
Mental Health Problems	5	51,312	15.80	718	33,074		426	3,954
Learning Disability Problems	6	12,356	4.12	13	4,906			260
Neurological System Problems	7	11,836	3.66	6,211	2,378		82	602
Eye/Vision Problems	8	7,809	2.81	3,560			8	-532
Hearing Problems	9	1,993	0.61	837				164
Circulation Problems (CHD)	10	30,469	9.38	18,808			2,468	1,181
Respiratory System Problems	11	16,041	4.96	10,015			1,418	1,001
Dental Problems	12	2,517	0.80	1,042		720		325
Gastro Intestinal System Problems	13	17,263	5.31	11,608				1,304
Skin Problems	14	6,024	1.85	3,957				276
Musculo Skeletal System Problems (orthodox tre	15	14,302	4.40	6,802		1,372	541	1,202
Trauma & Injuries (including burns)	16	12,401	4.13	7,841			2,702	1,618
Genito Urinary System Disorders (except infertili	17	15,014	4.62	10,313		1,828		356
Maternity & Reproductive Health	18	10,611	3.27	6,344		1,000	170	345
Neonate Conditions	19	3,561	1.09	2,124				134

PB CATEGORIES

PROGRAMME BUDGETING 2003/04

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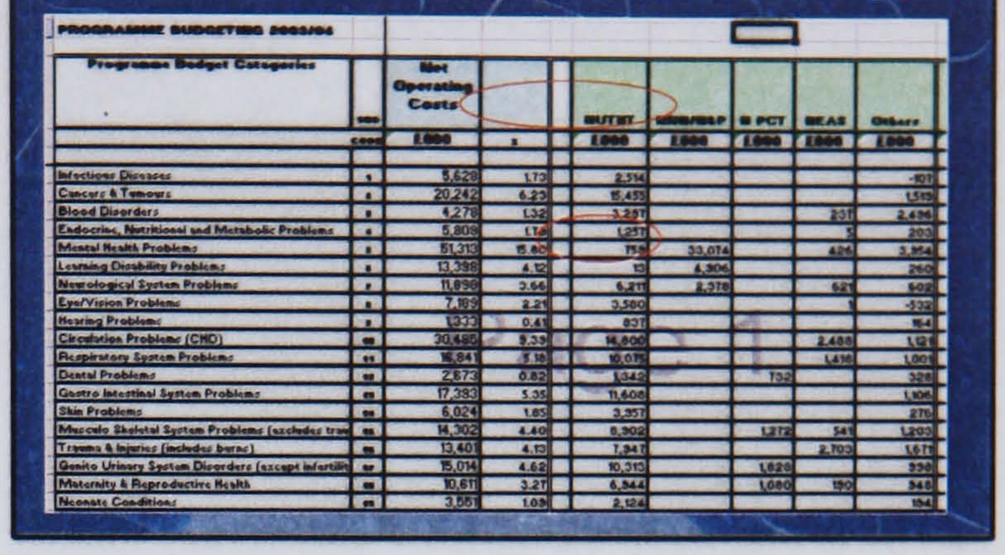
Neonate Conditions	19	3,561	1.09	2,124				134

APPENDIX H. Introductory PBMA presentation

PB CATEGORIES

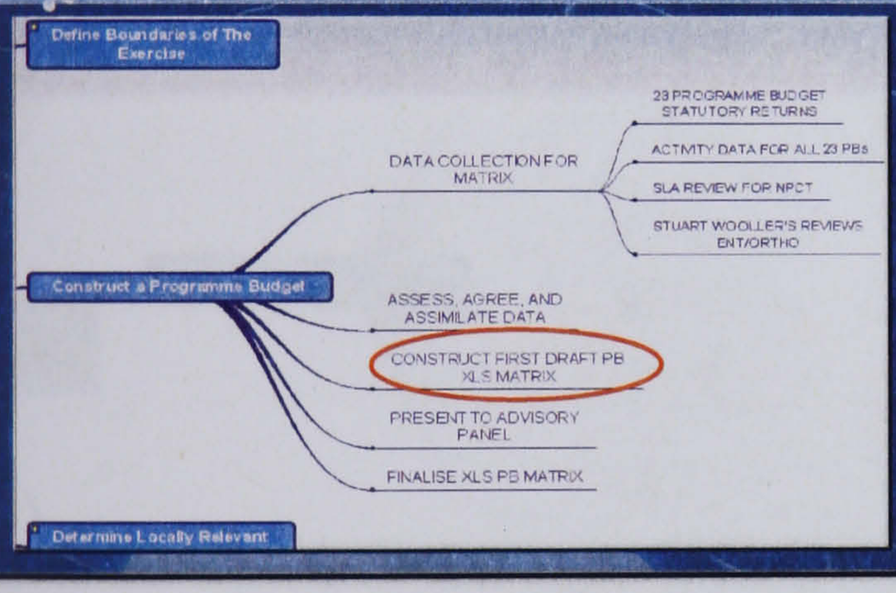
- Mental health problems
- Learning disability problems
- Poisoning
- Neurological problems
- Endocrine problems
- Eye/ vision problems
- Dental problems
- Hearing problems
- Circulation problems
- Respiratory problems
- GI problems
- GU disorders
- Maternal health
- Neonatal conditions
- Musculo-skeletal problems
- Trauma
- Infectious diseases
- Cancers and Tumours
- Blood disorders
- Skin problems
- Healthy individuals
- Social care needs
- Others

COST AND ACTIVITY DATA

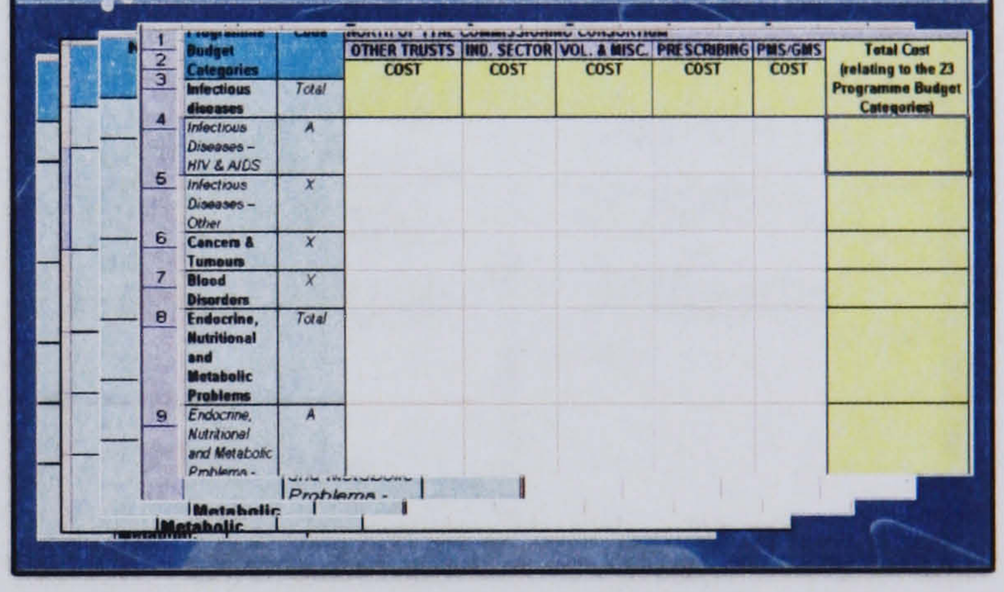


PROGRAMME BUDGETING 2003/04								
Programme Budget Categories		Net Operating Costs						
	£'000	£'000	%					
Infectious Diseases	1	5,620	1.73	2,514				-107
Cancers & Tumours	2	20,242	6.23	15,453				1,515
Blood Disorders	3	4,278	1.32	3,291			201	2,494
Endocrine, Nutritional and Metabolic Problems	4	5,809	1.79	1,251			3	203
Mental Health Problems	5	51,313	15.80	75	33,014		484	3,954
Learning Disability Problems	6	13,398	4.12	13	4,306			260
Neurological System Problems	7	11,899	3.66	6,211	2,378		621	502
Eye/Vision Problems	8	7,189	2.21	3,580			1	-332
Hearing Problems	9	1,933	0.41	831				164
Circulation Problems (CHD)	10	30,685	9.39	14,800			2,488	1,121
Respiratory System Problems	11	16,841	5.18	10,015			1,418	1,001
Dental Problems	12	2,673	0.82	1,342		732		328
Gastro Intestinal System Problems	13	17,383	5.35	11,606				1,106
Skin Problems	14	6,024	1.85	3,357				276
Muscolo Skeletal System Problems (excludes trau	15	14,302	4.40	8,302		1,272	541	1,203
Trauma & Injuries (includes burns)	16	13,401	4.13	7,941			2,703	1,671
Genito Urinary System Disorders (except infertili	17	15,014	4.62	10,315		1,620		330
Maternity & Reproductive Health	18	10,611	3.27	6,344		1,080	190	348
Neonate Conditions	19	3,651	1.09	2,124				154

CONSTRUCTING THE PB

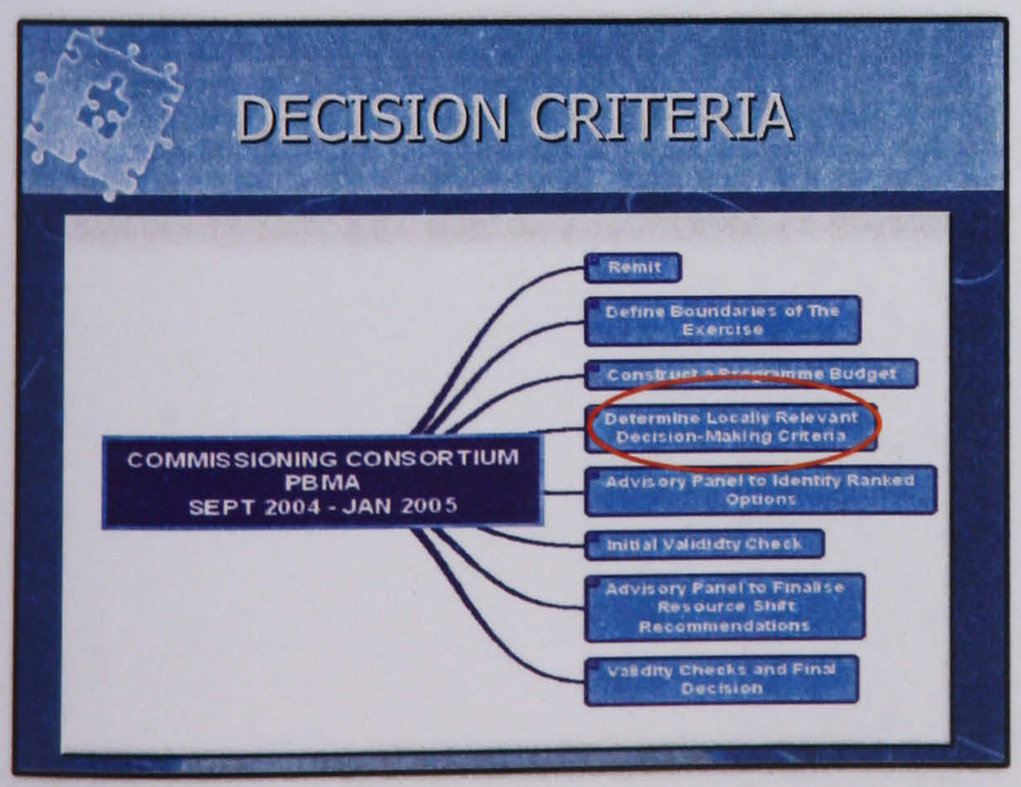


PB MATRIX

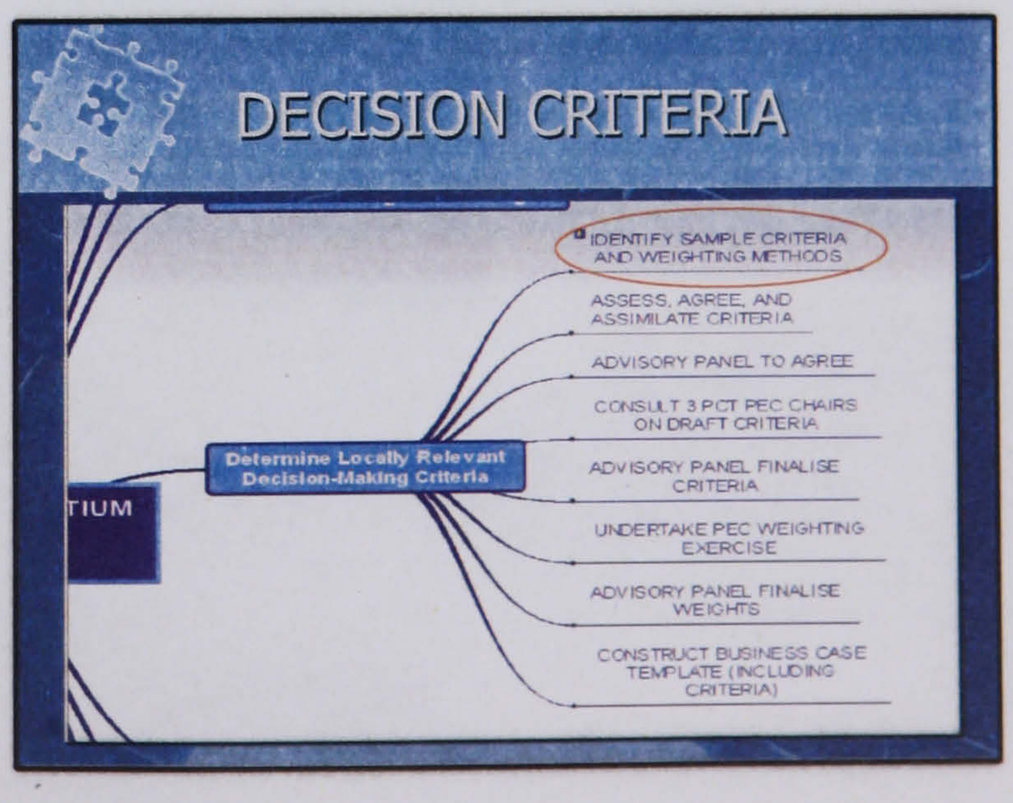


	Budget Categories		OTHER TRUSTS	IND. SECTOR	VOL. & MISC.	PRESCRIBING	PMS/GMS	Total Cost (relating to the 23 Programme Budget Categories)
			COST	COST	COST	COST	COST	
1	Infectious diseases	Total						
2	Infectious Diseases – HIV & AIDS	A						
3	Infectious Diseases – Other	X						
4	Cancers & Tumours	X						
5	Blood Disorders	X						
6	Endocrine, Nutritional and Metabolic Problems	Total						
7	Endocrine, Nutritional and Metabolic Problems -	A						
	Metabolic							
	Metabolic							

DECISION CRITERIA

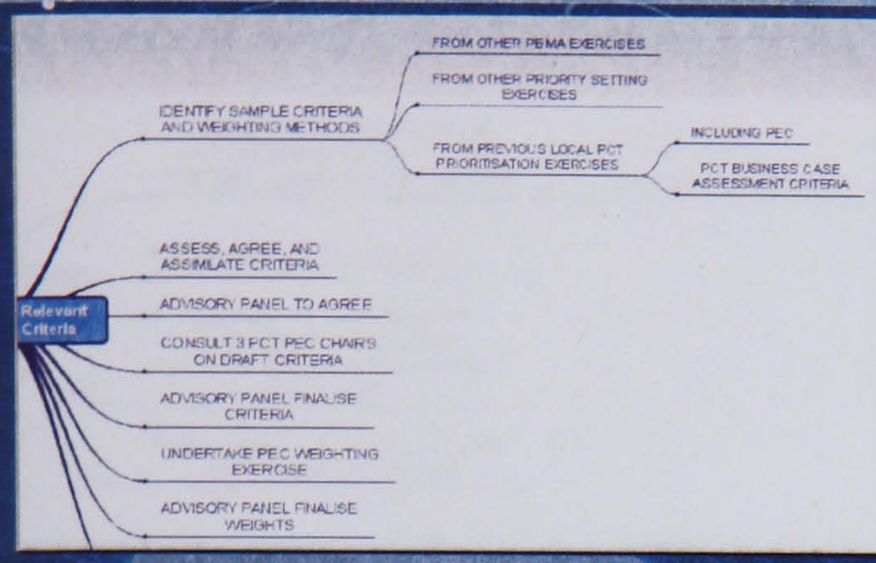


DECISION CRITERIA



APPENDIX H. Introductory PBMA presentation

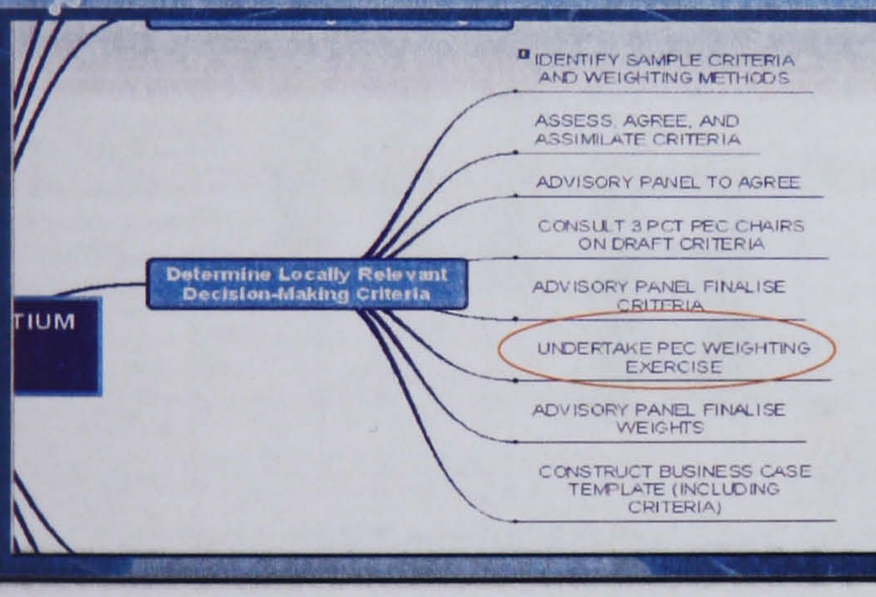
DECISION CRITERIA

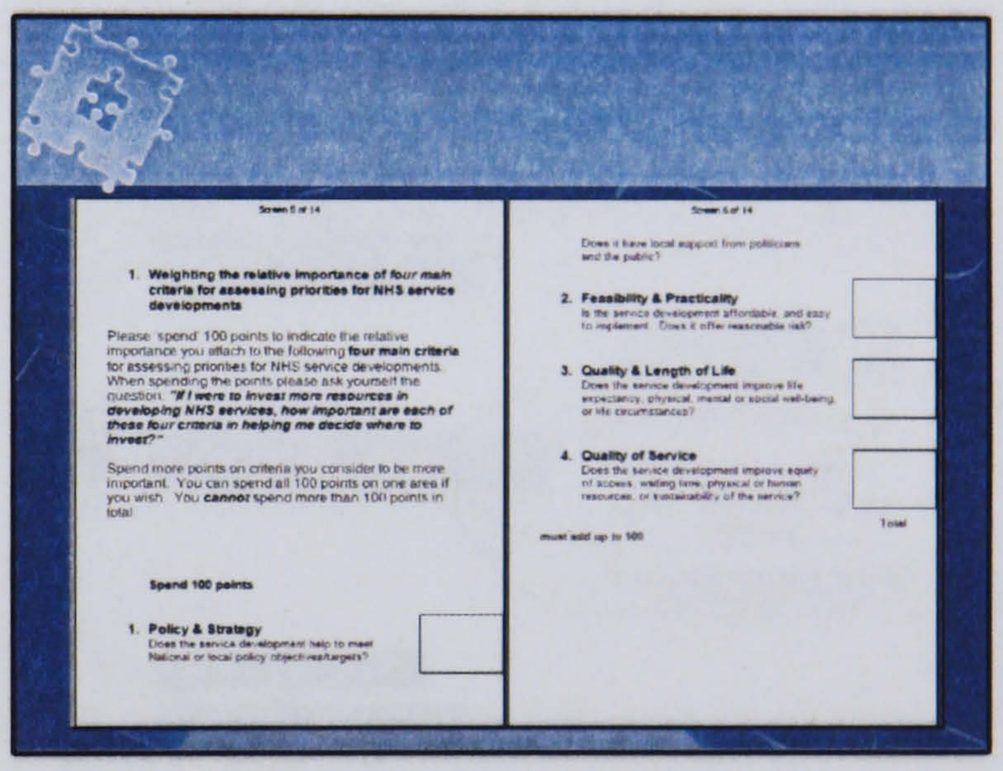


IDENTIFYING CRITERIA

- Local criteria used in the recent past
- Four key types of commonly used criteria emerged:
  - **Policy & strategy criteria**
  - **Feasibility & practicality criteria**
  - **Quality of life & length of life criteria**
  - **Quality of service criteria**
- A total of 18 separate criteria were identified within these four main headings.

DECISION CRITERIA





Screen 5 of 14

1. **Weighting the relative importance of *four* main criteria for assessing priorities for NHS service developments**

Please 'spend' 100 points to indicate the relative importance you attach to the following **four main criteria** for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"If I were to invest more resources in developing NHS services, how important are each of these four criteria in helping me decide where to invest?"***

Spend more points on criteria you consider to be more important. You can spend all 100 points on one area if you wish. You ***cannot*** spend more than 100 points in total

Spend 100 points

1. **Policy & Strategy**
Does the service development help to meet National or local policy objectives/targets?

Screen 6 of 14

Does it have local support from politicians and the public?

2. **Feasibility & Practicality**
Is the service development affordable, and easy to implement. Does it offer reasonable risk?

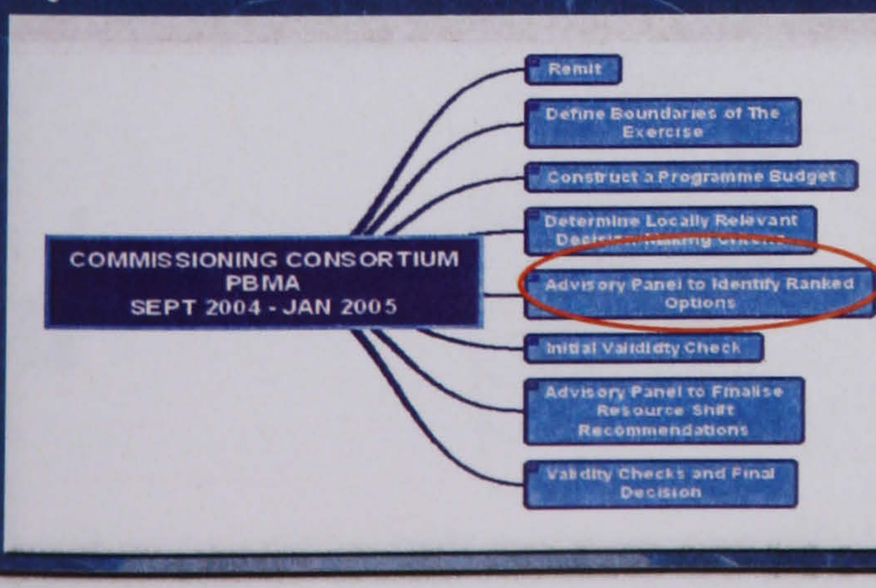
3. **Quality & Length of Life**
Does the service development improve life expectancy, physical, mental or social well-being, or life circumstances?

4. **Quality of Service**
Does the service development improve equity of access, waiting time, physical or human resources, or sustainability of the service?

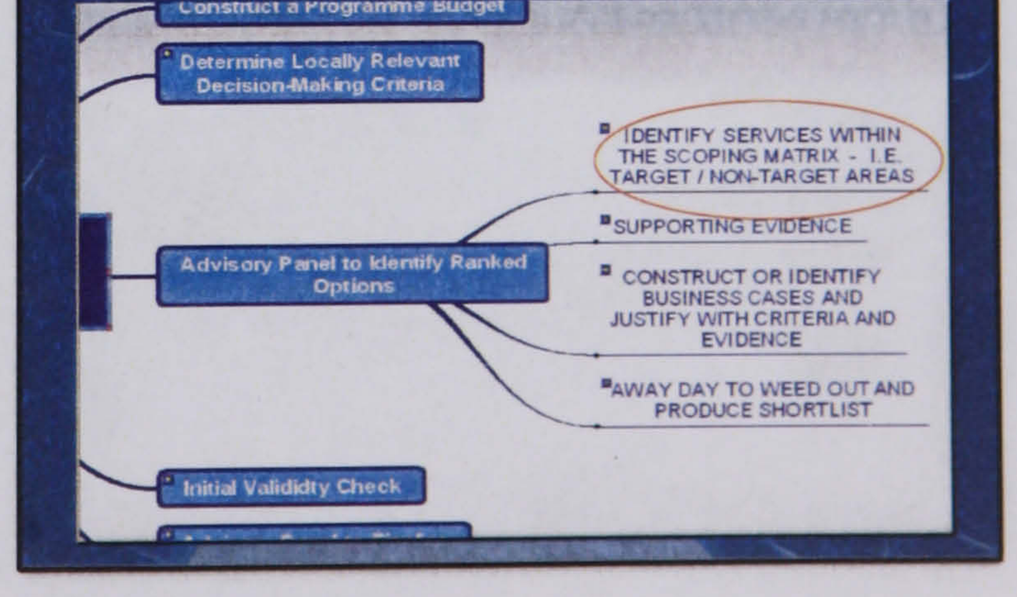
Total

must add up to 100

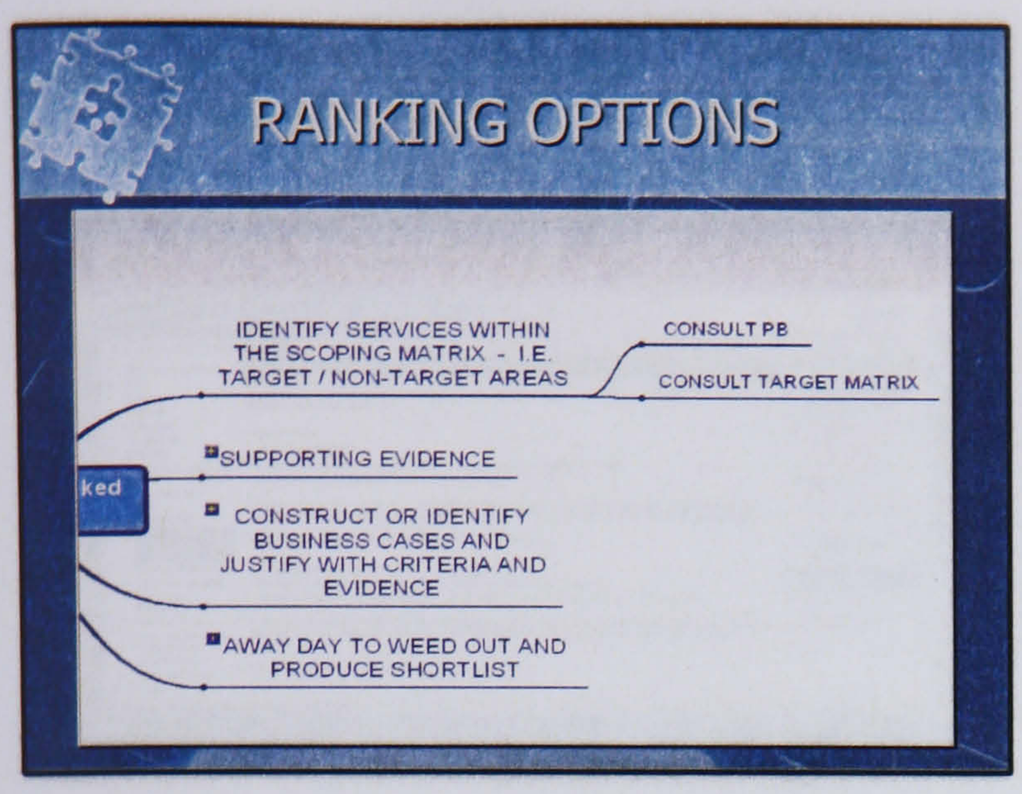
RANKING OPTIONS

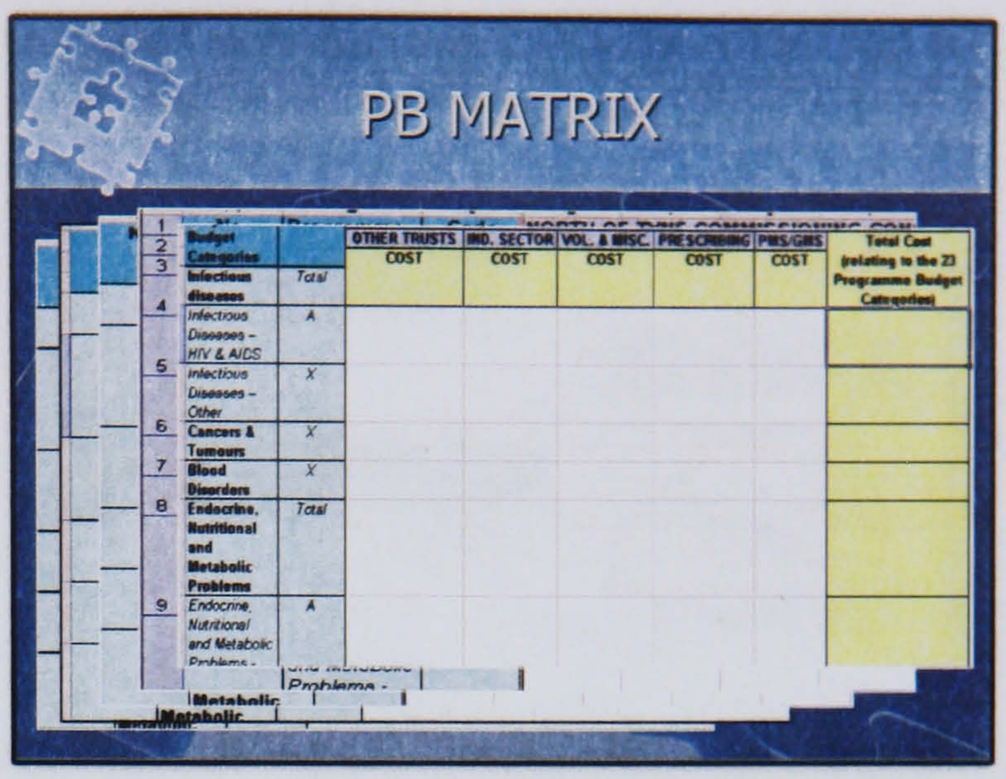


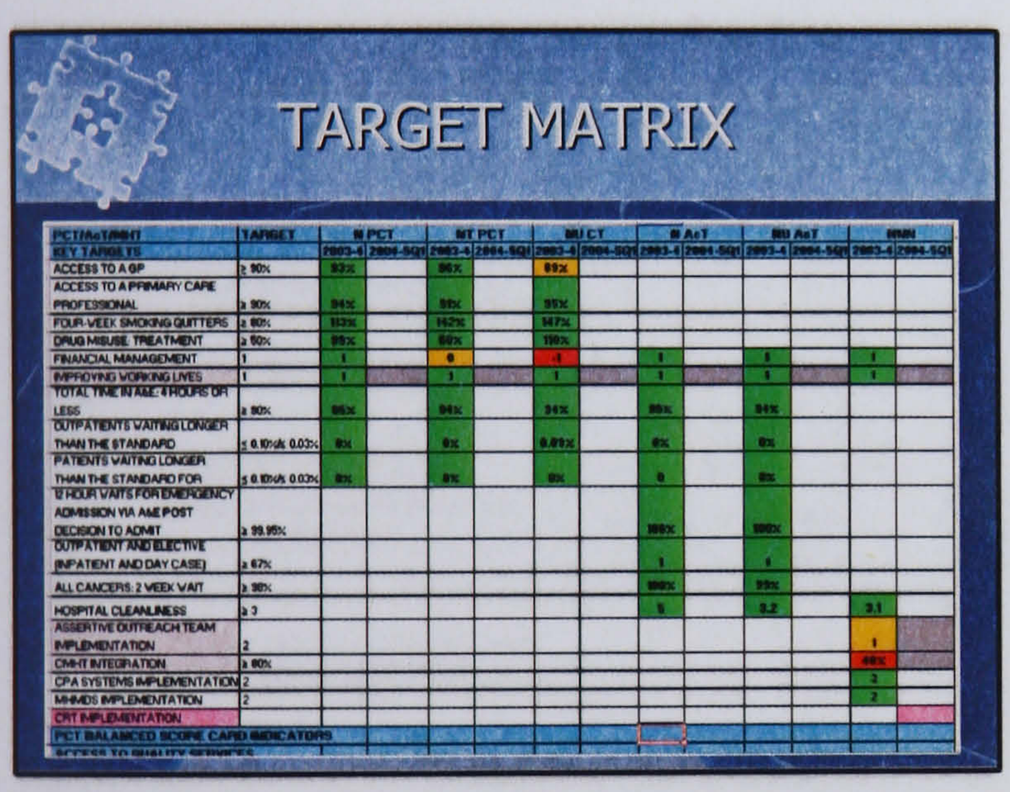
RANKING OPTIONS

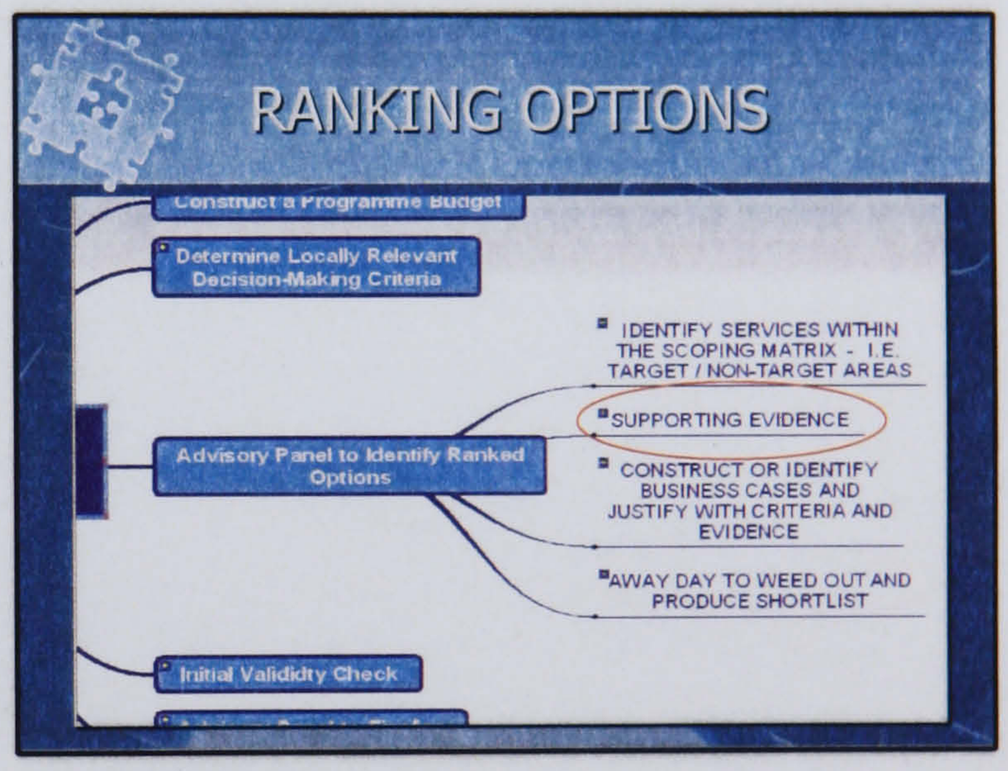


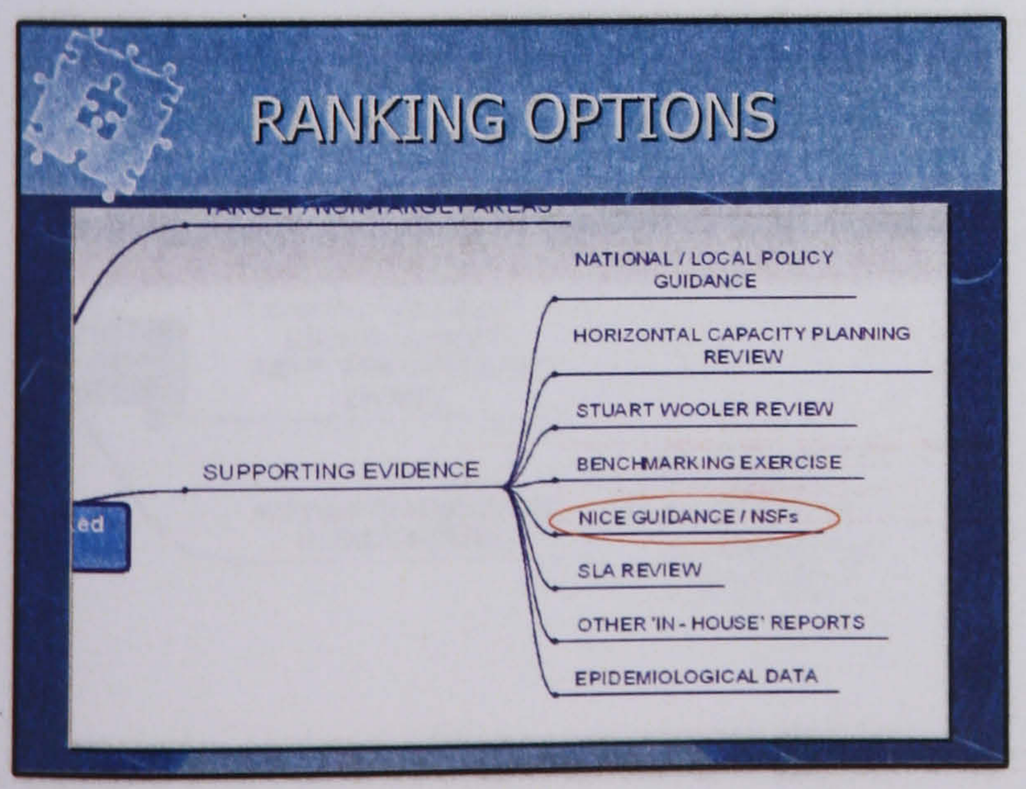
APPENDIX H. Introductory PBMA presentation

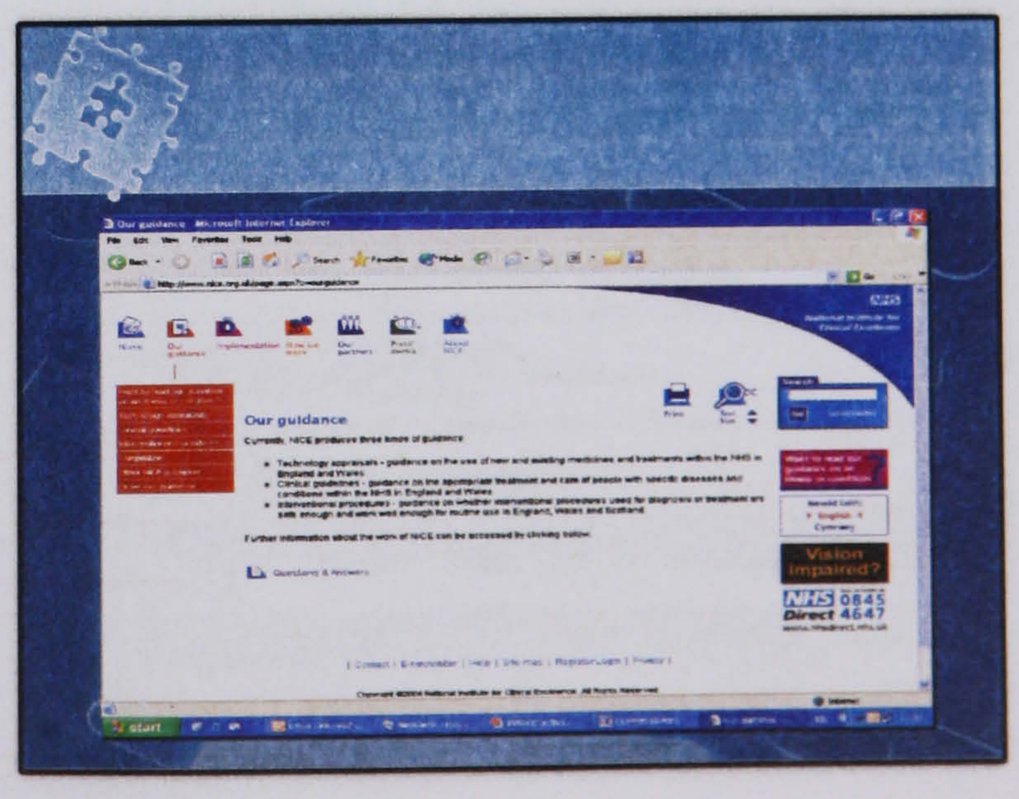




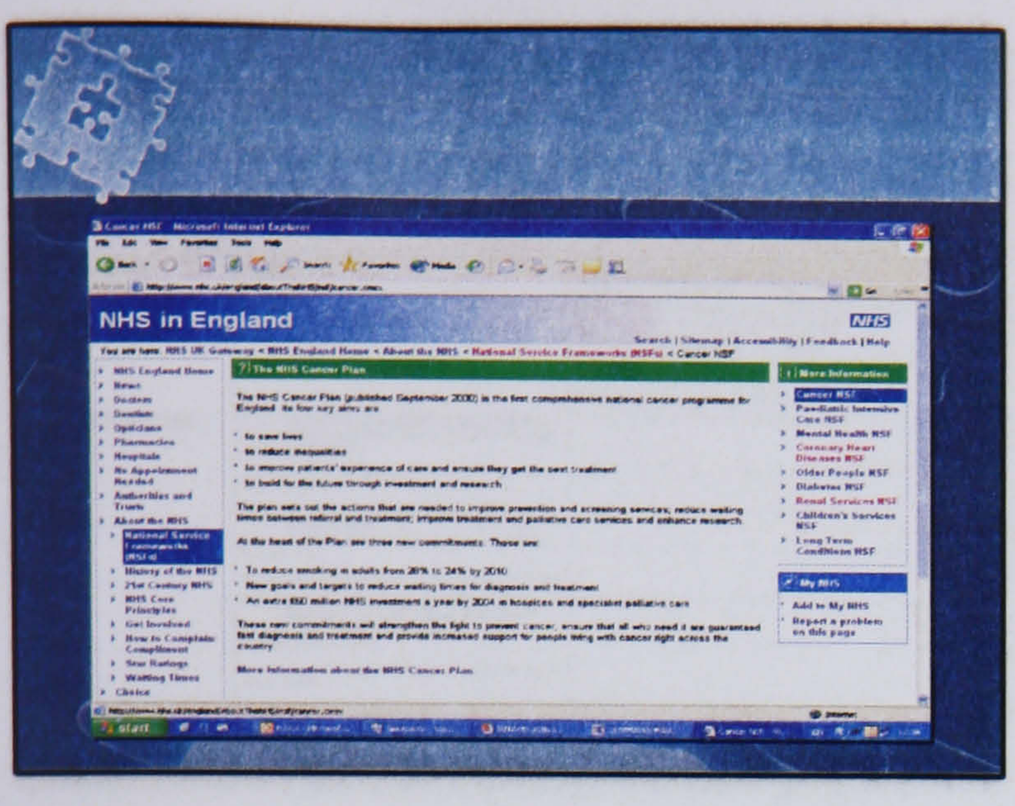


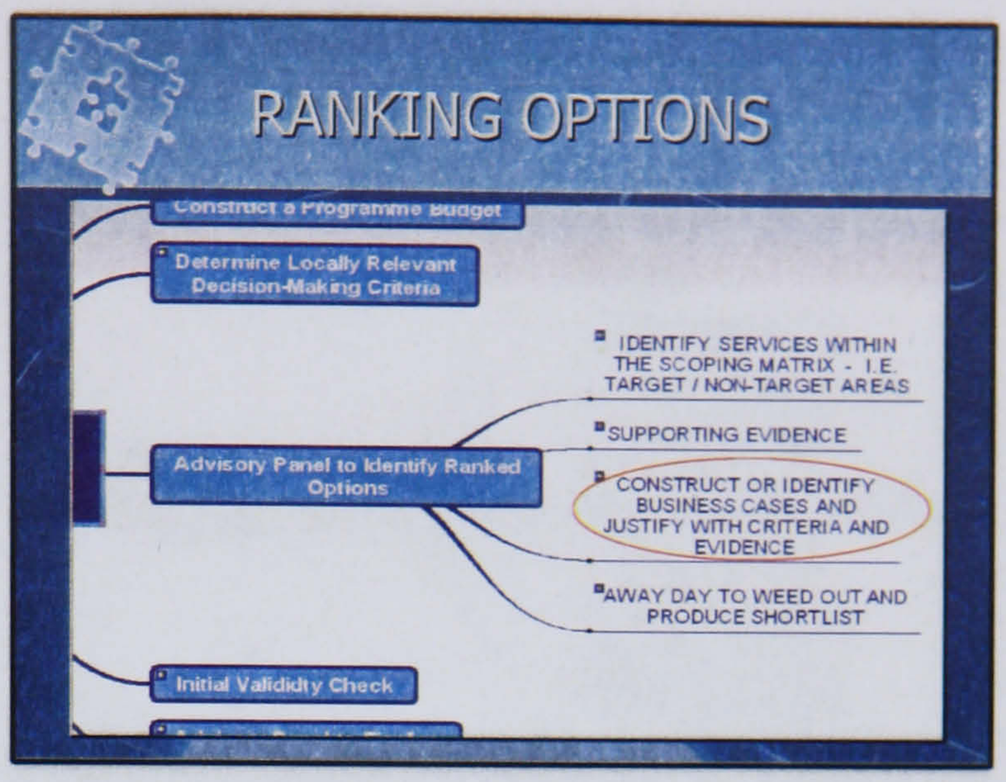


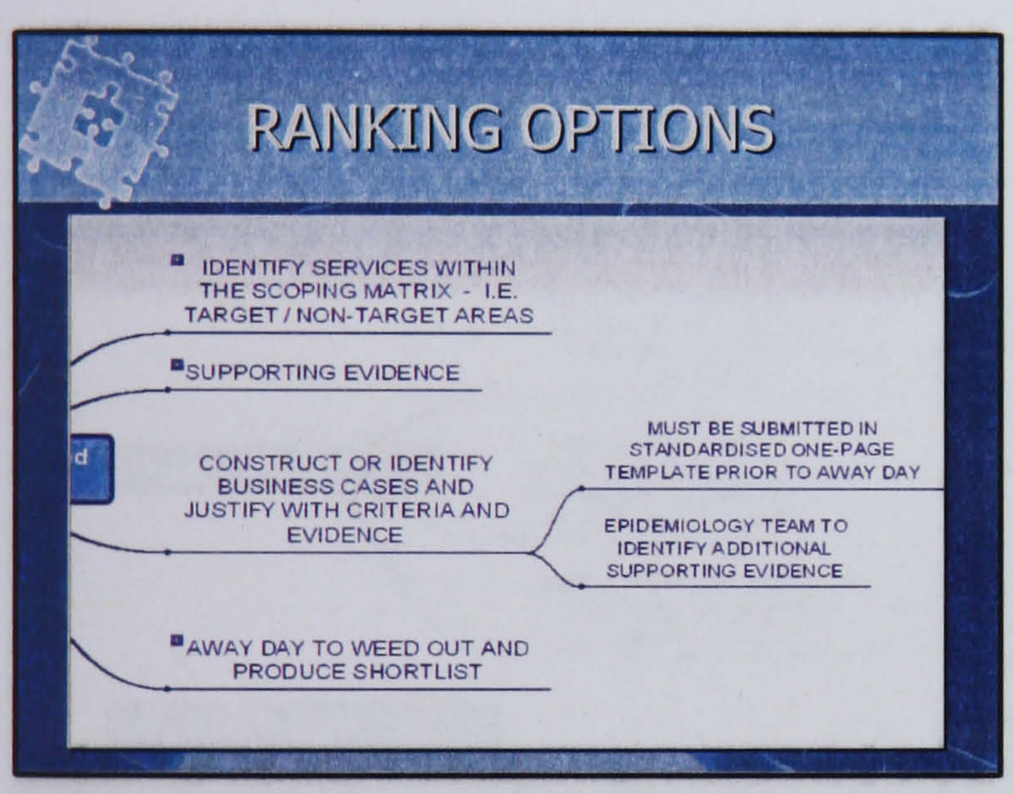


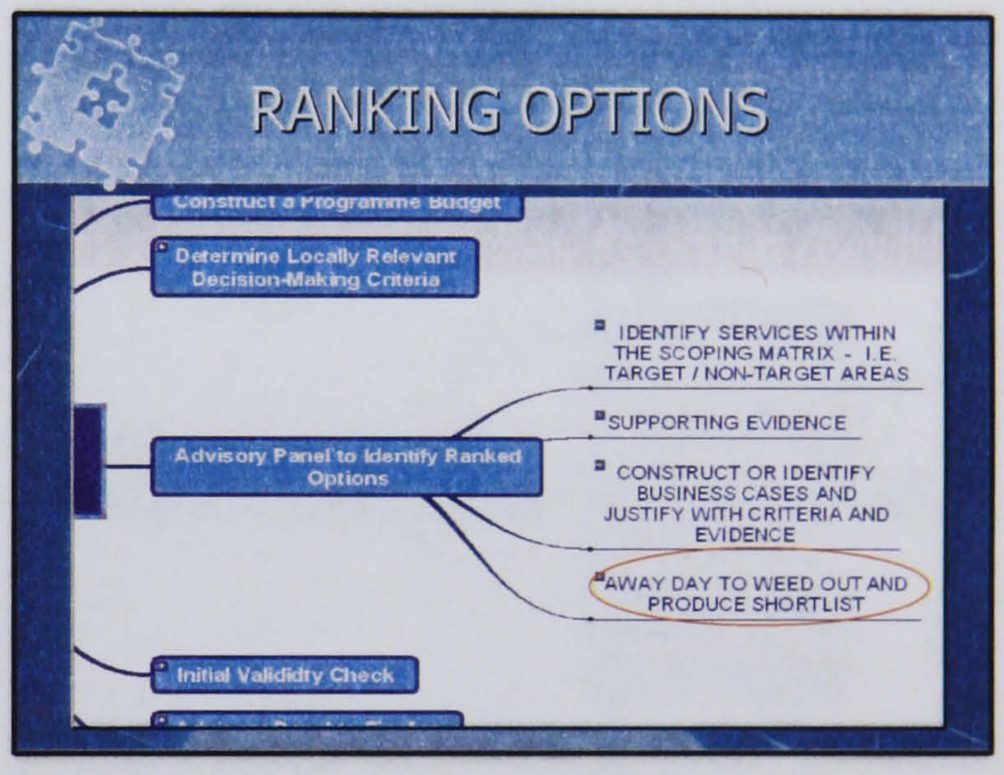


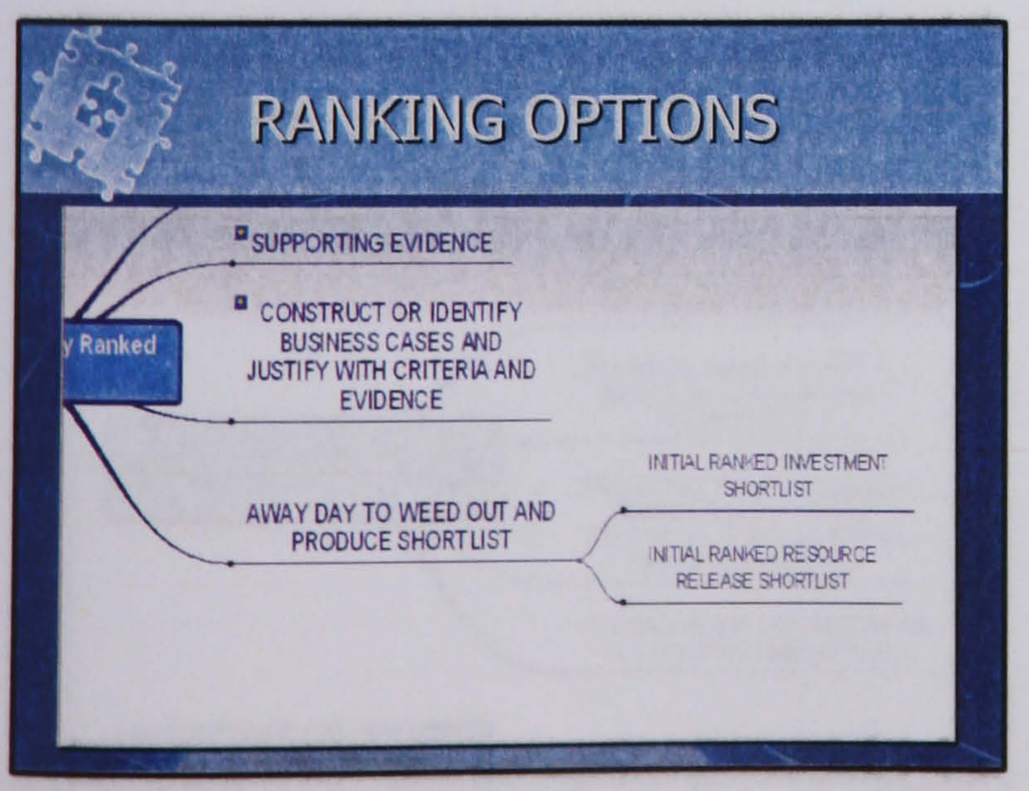
APPENDIX H. Introductory PBMA presentation

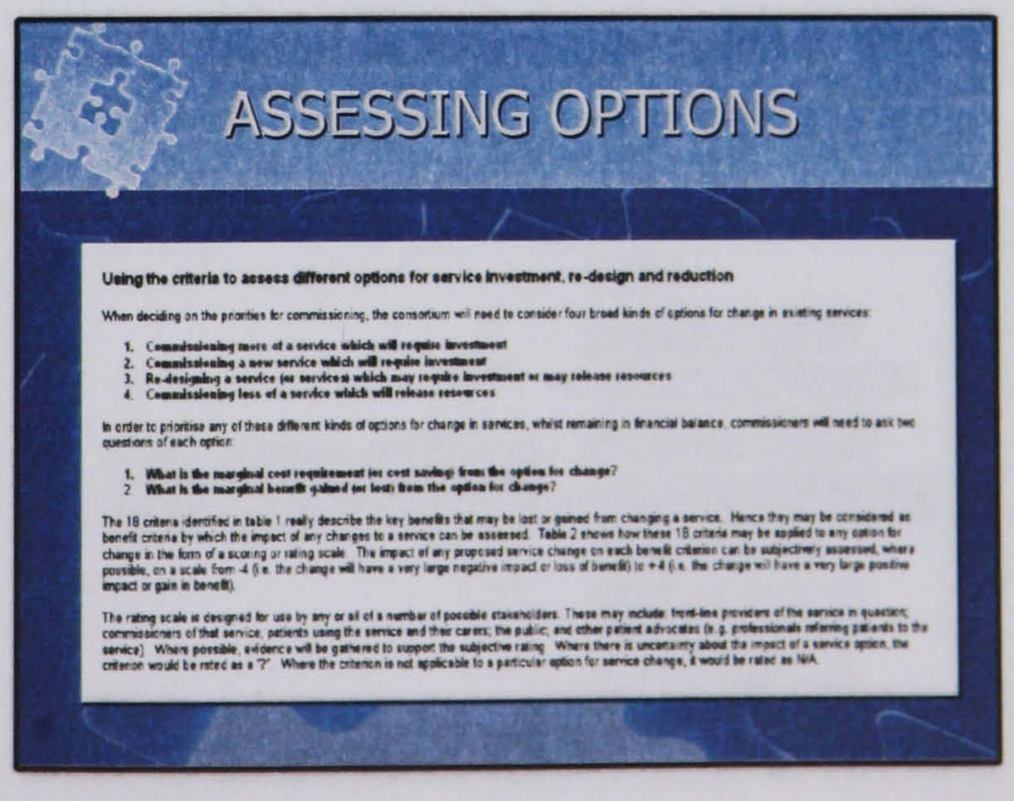












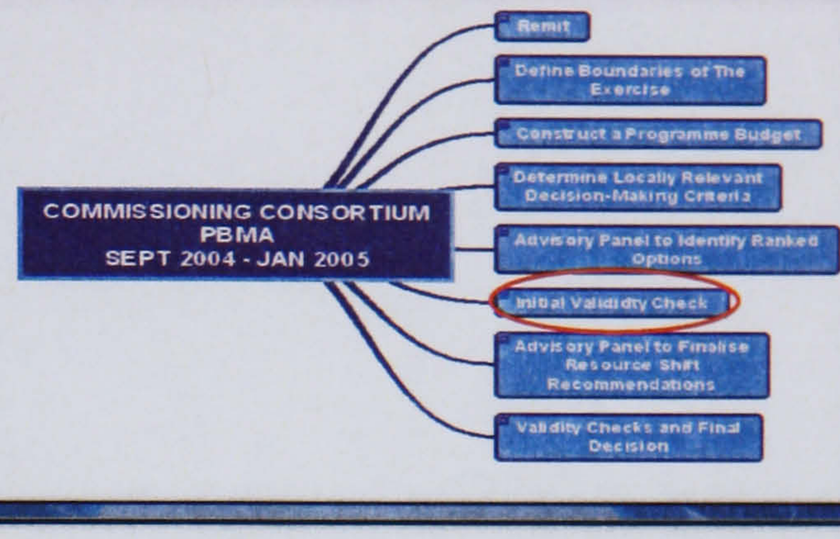
APPENDIX H. Introductory PBMA presentation

ASSESSING OPTIONS

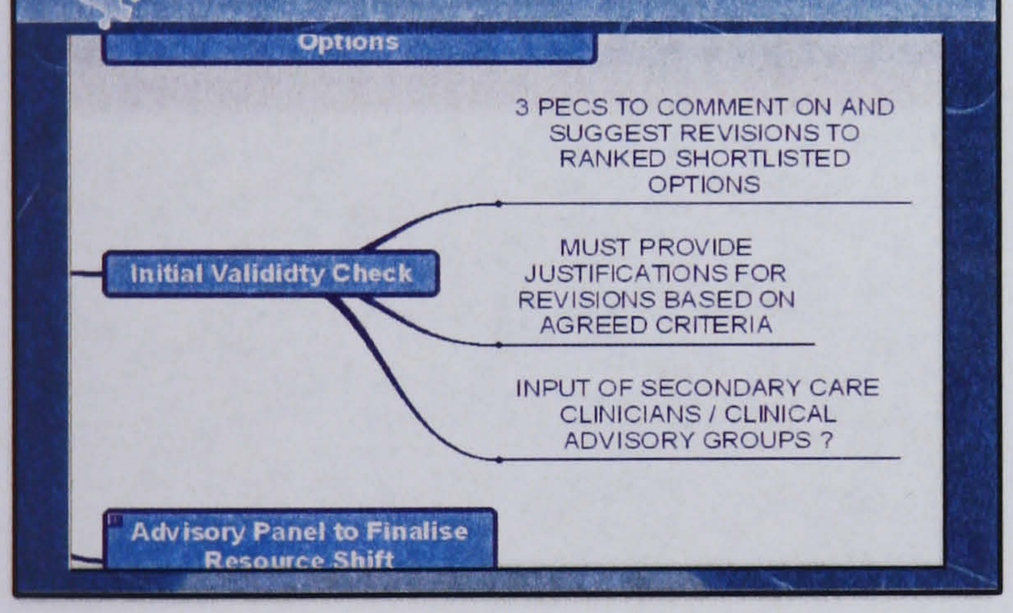
TABLE 2 - PROPOSED SCORING SHEET FOR BENEFITS GAINED/LOST FROM INVESTMENT/RESOURCE RELEASE SERVICE OPTIONS

Main Heading	Criterion	Assessing the benefits gained/lost from investing/releasing resources in the proposed option
		Please circle a number from -4 to +4 to indicate the likely impact of the proposed option when assessed against each sub-criterion (i.e. +/-4 = very large positive/negative impact; +/-3 = large positive/negative impact; +/-2 = small positive/negative impact; +/-1 = minimal positive/negative impact; 0 = no impact; ? = don't know; N/A = not applicable) **negative impact | positive impact |**
1. Policy & Strategy	• **Impact on meeting national policy objectives** +4 = e.g. will bring local NHS significantly closer to meeting major policy objectives -4 = e.g. will take us significantly further away from major policy objectives	-4 -3 -2 -1 0 +1 +2 +3 +4 ? N/A
	• **Impact on meeting local policy objectives and/or targets** +4 = e.g. will bring local NHS significantly closer to meeting local key targets -4 = e.g. will take us significantly away from local key targets	-4 -3 -2 -1 0 +1 +2 +3 +4 ? N/A
	• **Impact on opinion (support or opposition) of local politicians and/or local community** +4 = e.g. option has very strong support from local community groups and MPs -4 = e.g. option is very strongly opposed by local community groups and MPs	-4 -3 -2 -1 0 +1 +2 +3 +4 ? N/A
2. Feasibility / Practicality	• **Impact on overall budget** +4 = e.g. will release very significant resources in relation to overall expenditure	-4 -3 -2 -1 0 +1 +2 +3 +4 ? N/A

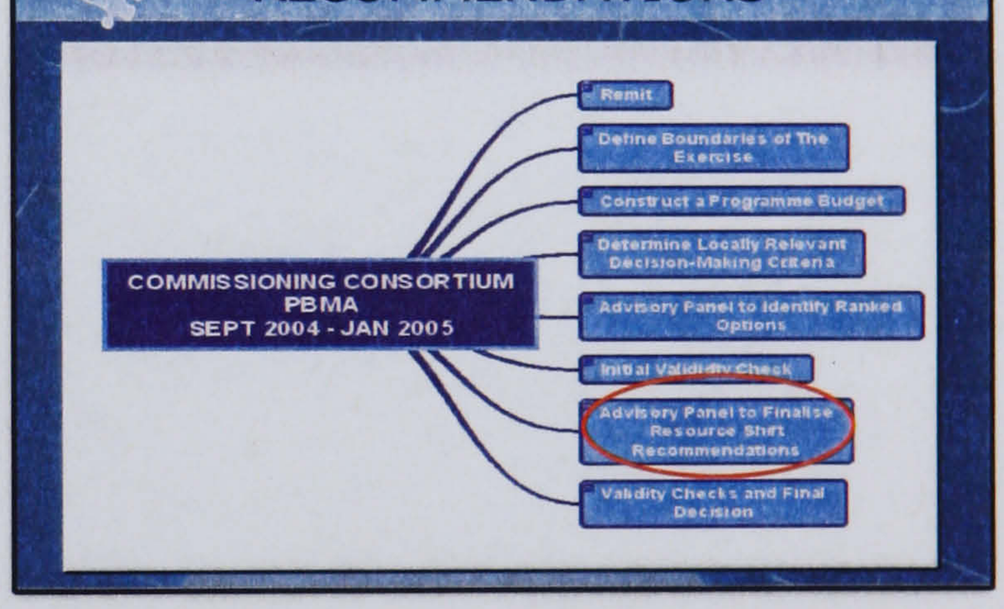
VALIDITY CHECK



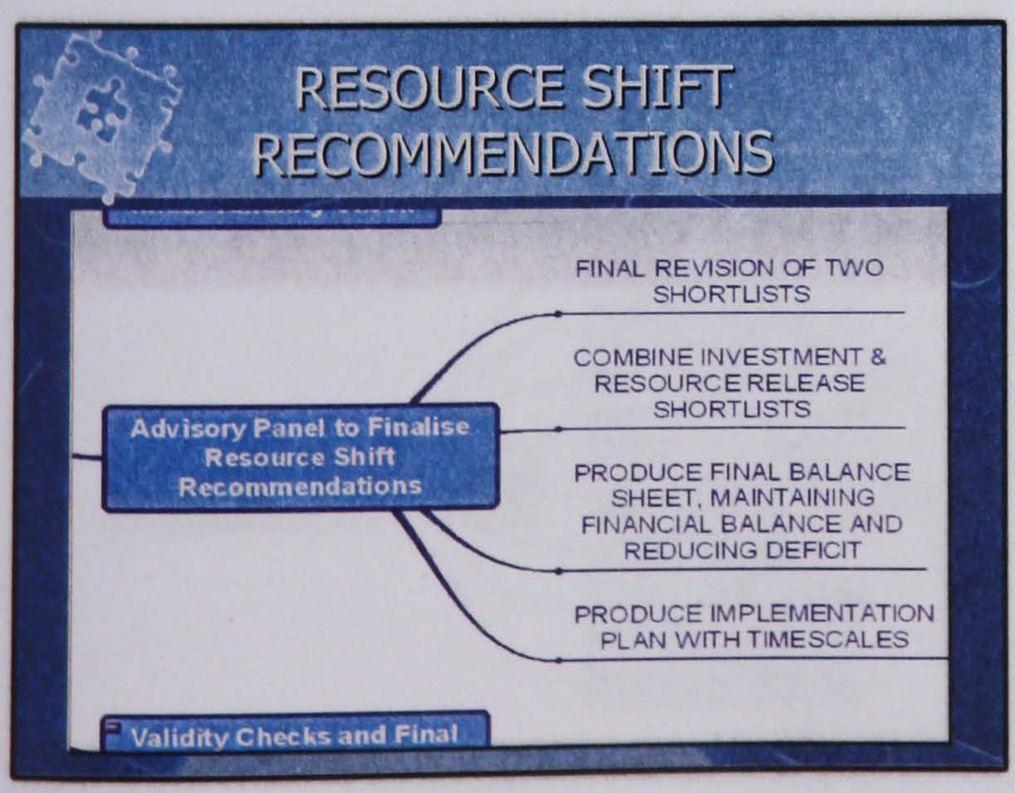
VALIDITY CHECK



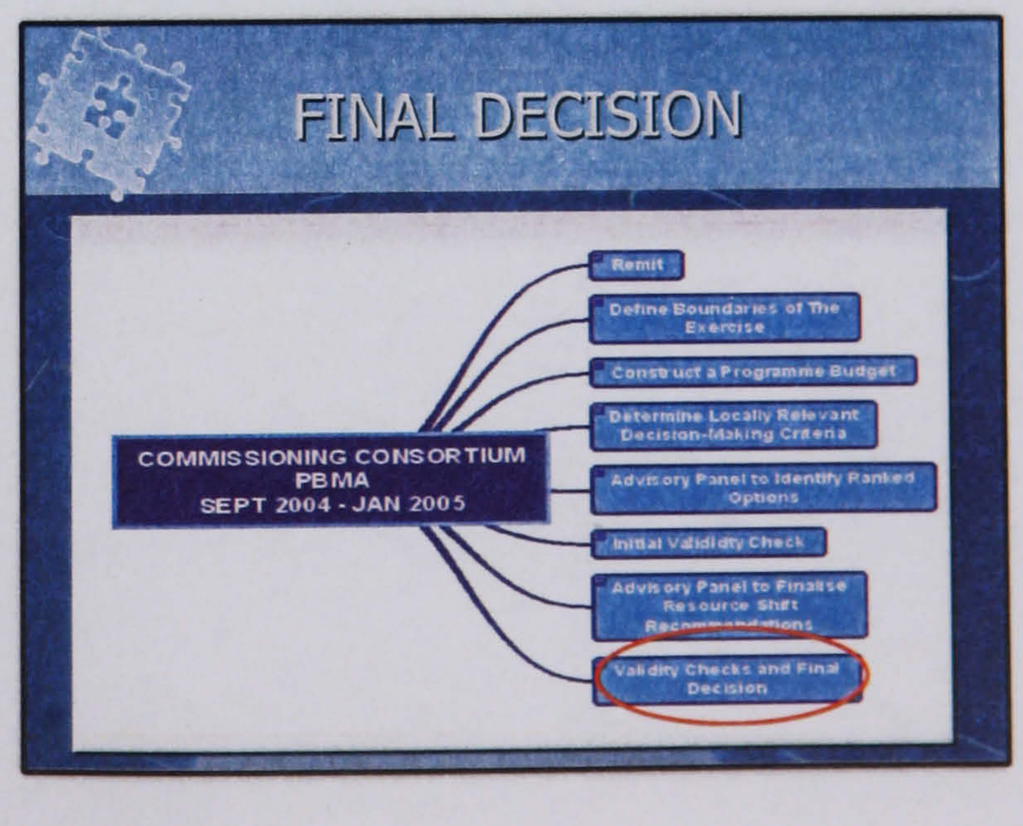
RESOURCE SHIFT RECOMMENDATIONS



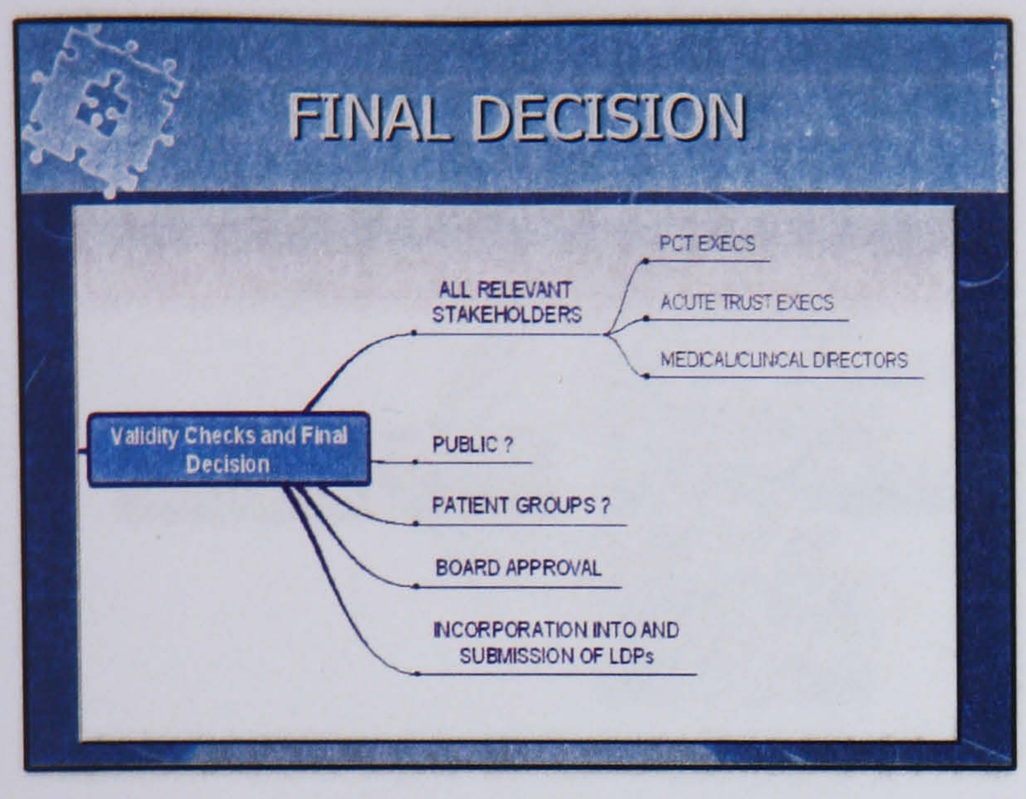
RESOURCE SHIFT RECOMMENDATIONS

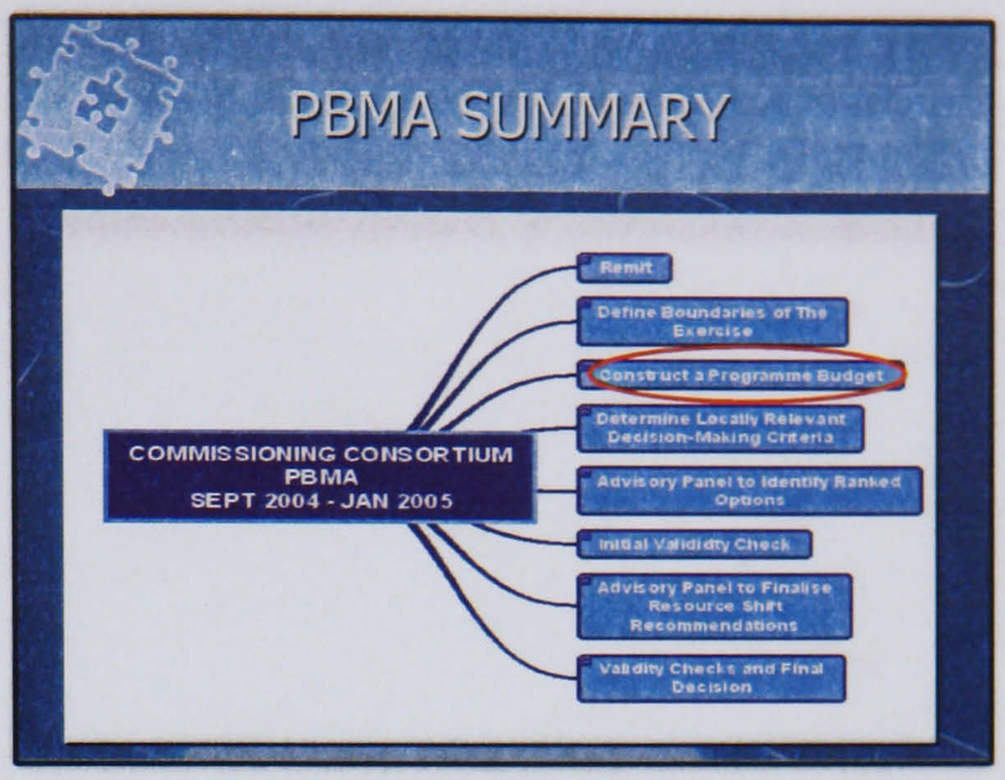


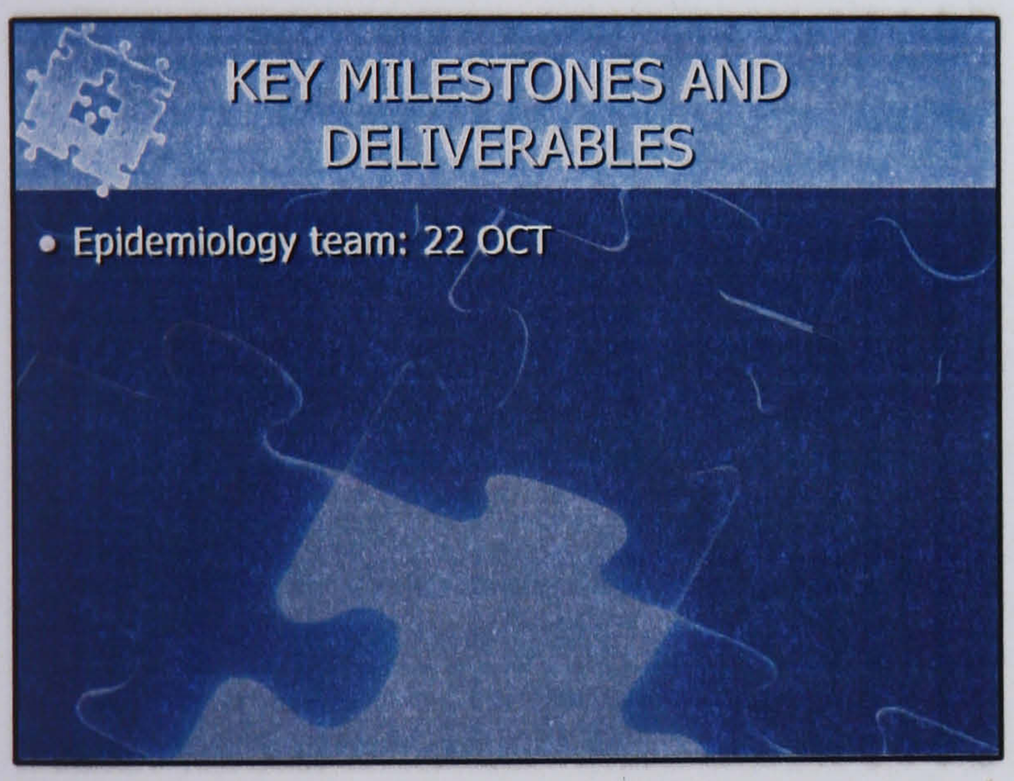
FINAL DECISION

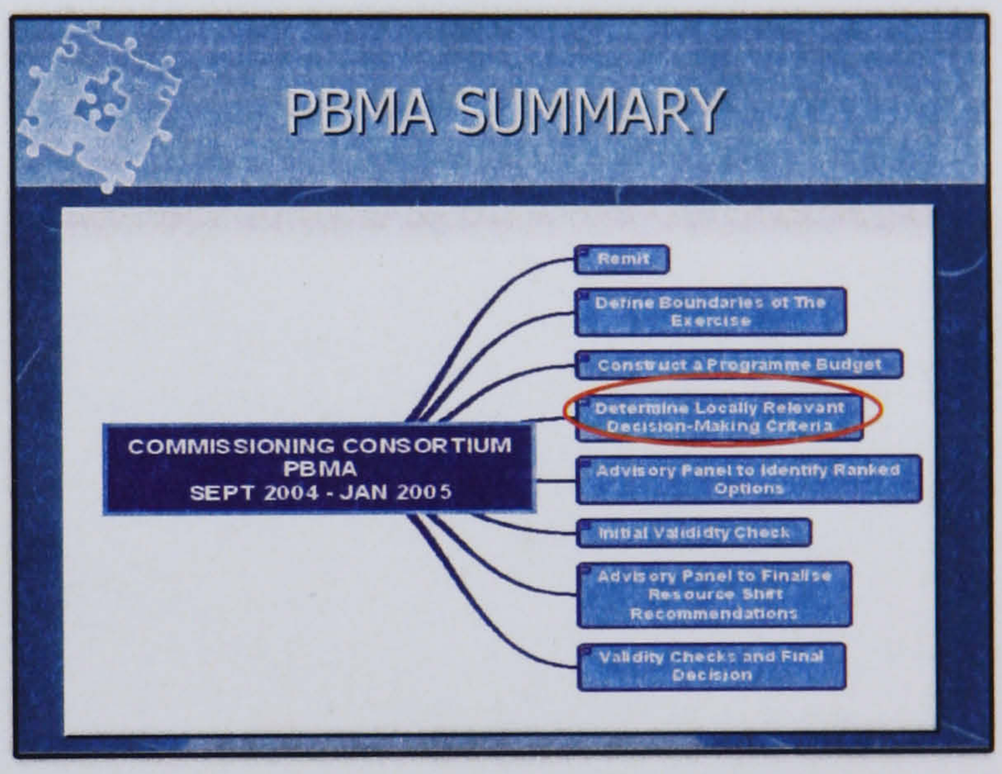


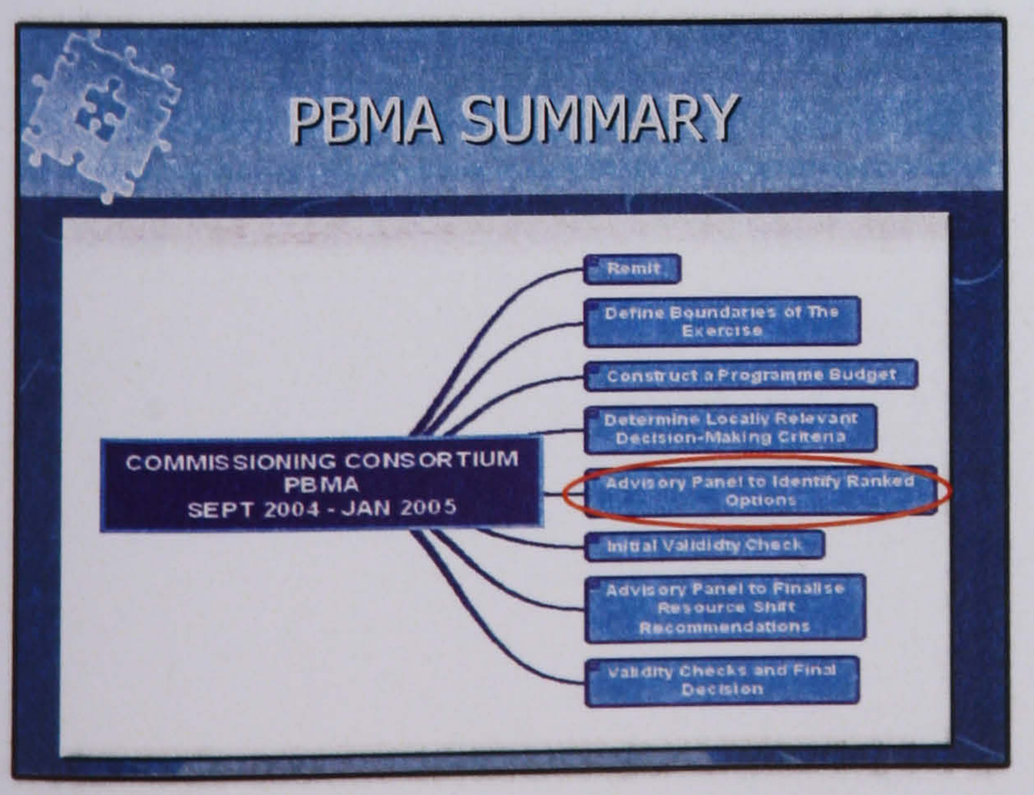
APPENDIX H. Introductory PBMA presentation

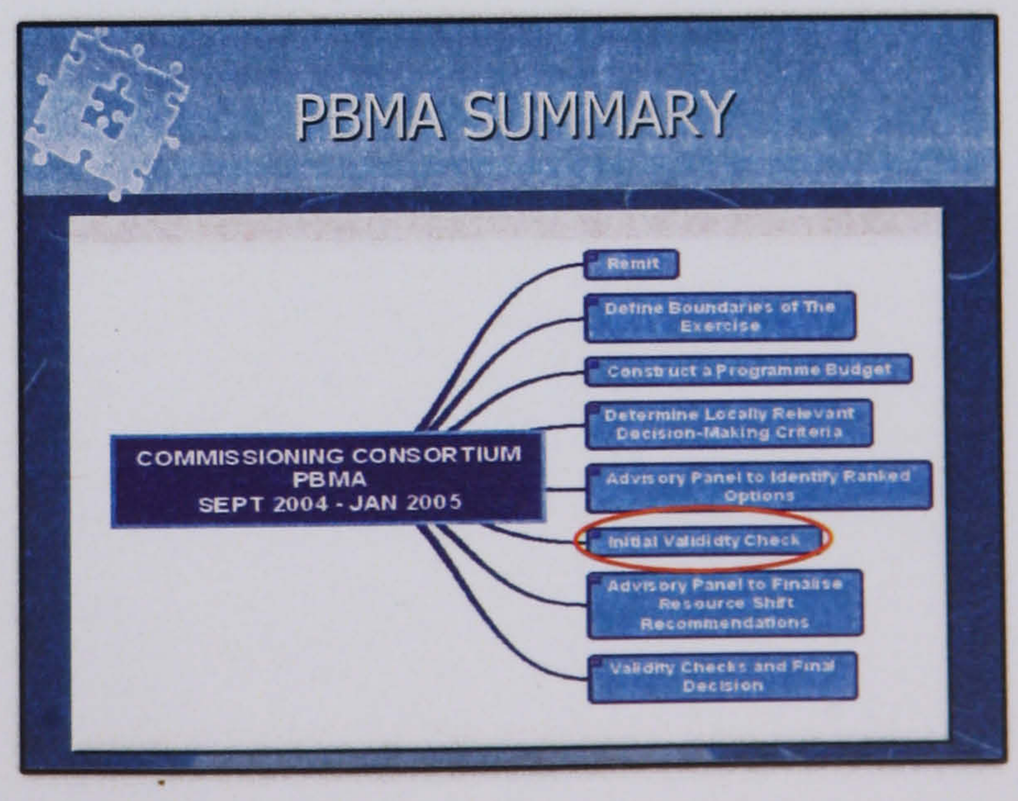




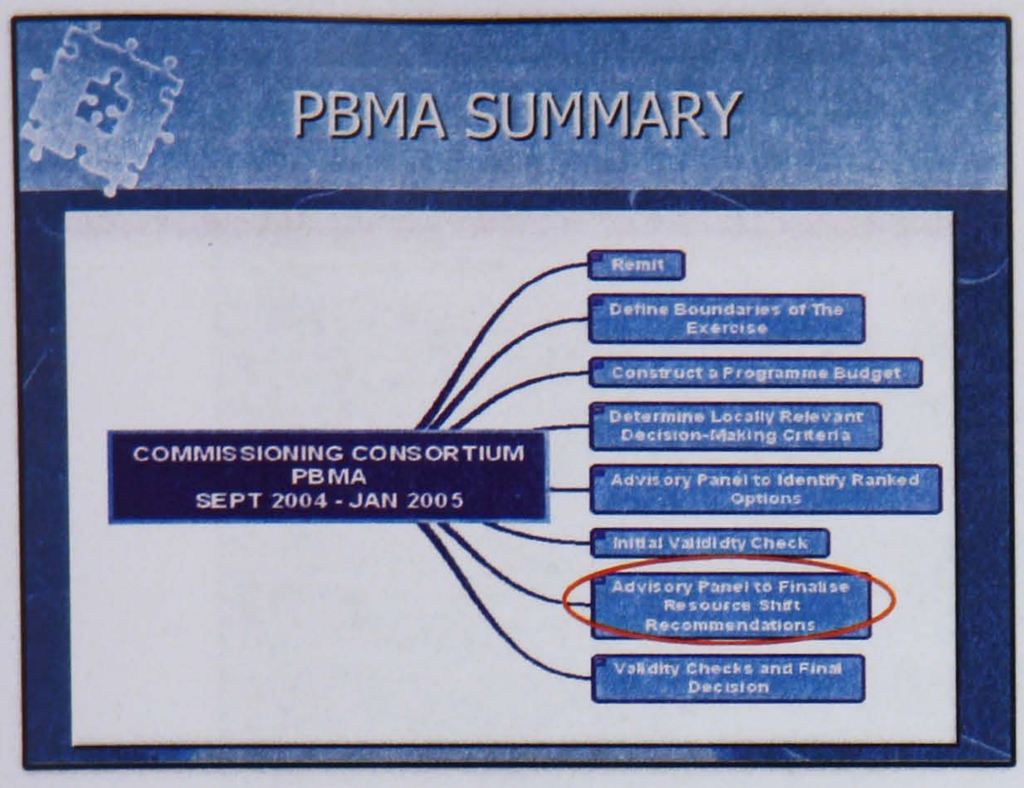


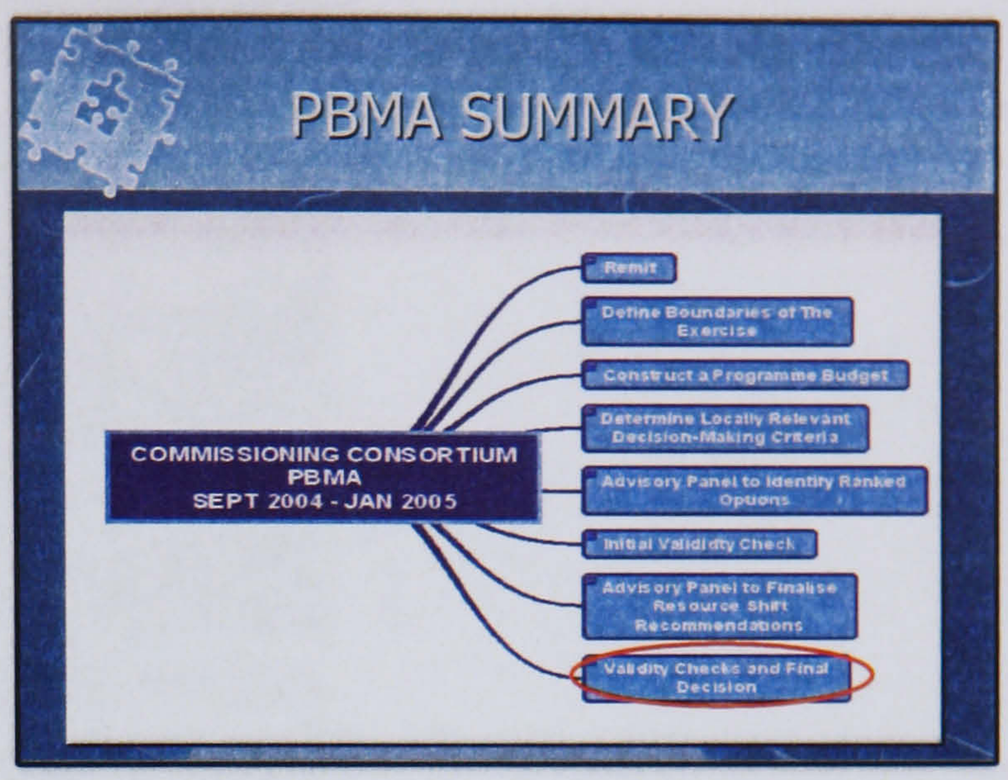


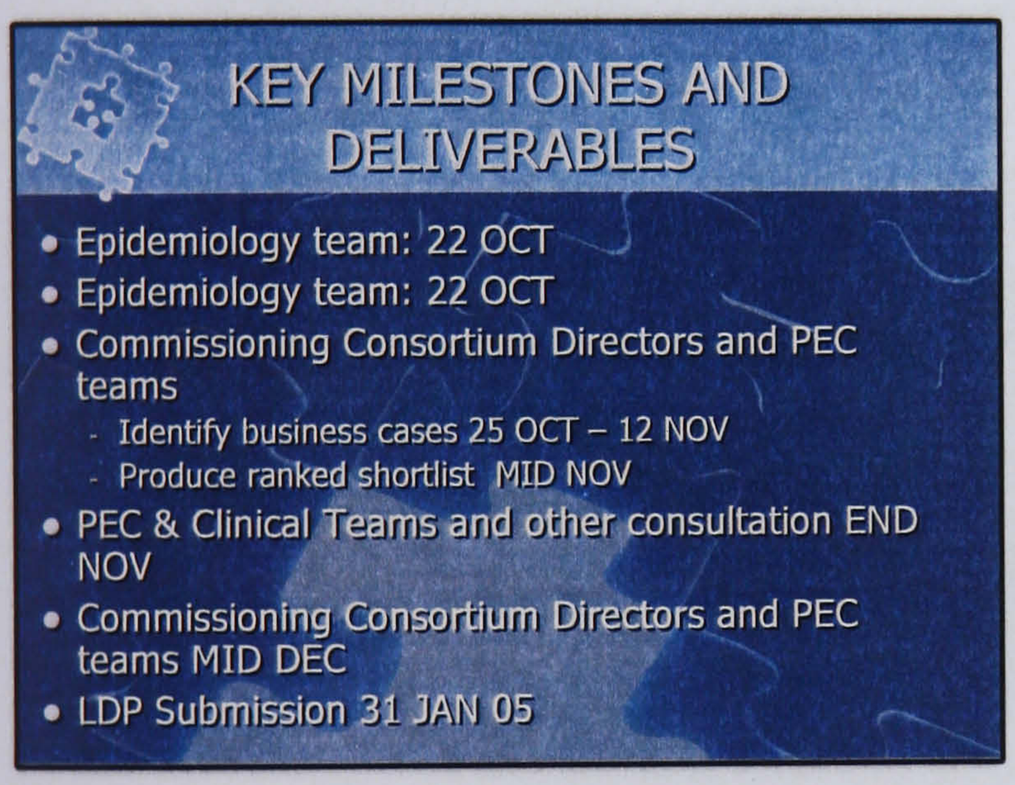




APPENDIX H. Introductory PBMA presentation







APPENDIX I. The programme budget

No.	Programme Budget Categories	Code	COMMISSIONING CONSORTIUM						
			ACUTE TRUST A						
			APC		ADMISSIONS			NAPC	
			COST	%	EL	NON-EL	DC	COST	%
1	**Infectious diseases**	*Total*	£1,769,229.40	55.6%	74	1351	274	£2,191.72	0.1%
	*Infectious Diseases – **HIV & AIDS***	*A*	£91,811.81	100.0%	4	26	5	£0.00	0.0%
	Infectious Diseases – Other	*X*	£1,677,417.59	54.3%	70	1325	269	£1,848.17	0.1%
2	**Cancers & Tumours**	*X*	£17,359,798.34	67.2%	4031	2283	15092	£11,378.64	0.0%
3	**Blood Disorders**	*X*	£1,079,113.34	60.3%	177	443	1350	£4,068.04	0.2%
4	**Endocrine, Nutritional and Metabolic Problems**	*Total*	£1,577,065.14	61.3%	342	732	615	£475.22	0.0%
	Endocrine, Nutritional and Metabolic Problems - Diabetes	*A*	£416,845.84	62.1%	32	253	25	£0.00	0.0%
	Endocrine, Nutritional and Metabolic Problems - Other	*X*	£1,160,219.30	61.0%	310	479	590	£400.32	0.0%
5	**Mental Health Problems**	*Total*	£886,414.11	7.3%	69	322	9	£102.89	0.0%
	Mental Health Problems – Substance Abuse	*A*	£205,563.78	26.0%	55	130	1	£0.00	0.0%
	Mental Health Problems - Dementia	*B*	£434,330.57	63.9%	3	87	0	£0.00	0.0%
	Mental Health Problems - Other	*X*	£246,519.76	2.3%	11	105	8	£86.74	0.0%
6	**Learning Disability Problems**	*X*	£14,866.00	59.5%	0	4	19	£7.53	0.0%
7	**Neurological System Problems**	*X*	£5,242,877.93	65.5%	838	2902	1783	£4,890.70	0.1%
8	**Eye/Vision Problems**	*X*	£5,007,485.02	98.6%	565	272	6534	£3,102.46	0.1%
9	**Hearing Problems**	*X*	£904,099.10	74.8%	441	171	579	£759.72	0.1%
10	**Circulation Problems**	*Total*	£20,109,574.30	71.2%	2503	5707	1859	£7,842.96	0.0%
	Circulation Problems – CHD	*A*	£6,916,095.71	77.0%	1033	1815	671	£0.00	0.0%
	Circulation Problems – Cerebrovascular Disease	*B*	£2,881,029.33	58.9%	135	1294	42	£0.00	0.0%
	Circulation Problems - Other	*X*	£10,312,449.27	71.8%	1335	2598	1146	£6,612.03	0.0%
11	**Respiratory System Problems**	*X*	£11,231,754.03	53.6%	2153	7933	955	£3,893.71	0.0%
12	**Dental Problems**	*X*	£629,949.38	58.8%	145	69	582	£1,741.20	0.2%
13	**Gastro Intestinal System Problems**	*X*	£14,230,862.56	48.8%	1916	6005	8016	£2,793.94	0.0%
14	**Skin Problems**	*X*	£3,543,046.05	64.2%	432	1534	1953	£2,967.32	0.1%
15	**Musculo Skeletal System Problems (excludes Trauma)**	*X*	£10,597,487.50	55.2%	2469	1493	1993	£4,780.10	0.0%
16	**Trauma & Injuries (includes burns)**	*Total*	£7,889,890.85	49.3%	177	4827	149	£4,368.36	0.0%
	*Trauma & Injuries (includes burns) – **Falls***	*A*	£4,028,759.82	100.0%	40	1946	16	£0.00	0.0%
	Trauma & Injuries (includes burns) - Other	*X*	£3,861,131.03	32.3%	137	2881	133	£3,682.99	0.0%
17	**Genito Urinary System Disorders (except infertility)**	*Total*	£9,160,934.79	62.3%	2019	2696	5678	£8,126.17	0.1%
	*Genito Urinary System Disorders (except infertility) – **Genital tract** Problems*	*A*	£5,812,620.25	57.6%	1397	1309	3366	£0.00	0.0%
	*Genito Urinary System Disorders (except infertility) – **Renal** Problems*	*B*	£299,553.78	95.8%	65	93	137	£0.00	0.0%
	*Genito Urinary System Disorders (except infertility) – **Chronic Renal** Failure*	*C*	£309,517.48	91.6%	72	97	370	£0.00	0.0%
	Genito Urinary System Disorders (except infertility) - Other	*X*	£2,739,243.28	69.2%	485	1197	1805	£6,852.23	0.2%
18	**Maternity & Reproductive Health**	*X*	£6,903,539.52	35.9%	802	6428	925	£2,768.91	0.0%
19	**Neonate Conditions**	*X*	£315,347.58	74.1%	0	552	28	£3,046.54	0.7%
20	**Poisoning**	*X*	£3,941,698.03	68.2%	494	2353	208	£649.53	0.0%
21	**Healthy Individuals**	*Total*	£3,500,741.37	66.6%	1280	401	3074	£847.21	0.0%
	*Healthy Individuals – **NSF** Prevention Programme*	*A*	£31,087.93	98.4%	9	5	10	£0.00	0.0%
	*Healthy Individuals – **NSF Mental** Health Prevention*	*B*	£0.00	0.0%	0	2	0	£0.00	0.0%
	Healthy Individuals - Other	*X*	£3,469,653.44	66.4%	1271	394	3064	£713.91	0.0%
22	**Social Care Needs**	*X*	£6,587.14	21.0%	1	4	0	£459.58	1.5%
23	**Other Areas of Spend/Conditions**	*X*	£1,074,506.70	53.4%	58	480	149	£7,359.33	0.4%
Total cost (relating to each trusts/ sector)			**£126,976,868.21**	**1332.5%**	**20986**	**48962**	**51824**	**£78,621.78**	**3.5%**

APPENDIX I. The programme budget

COMMISSIONING CONSORTIUM ACUTE TRUST B							COMMISSIONING CONSORTIUM MENTAL HEALTH TRUST						
APC		ADMISSIONS			NAPC		APC		ADMISSIONS			NAPC	
COST	%	EL	NON-EL	DC	COST	%	COST	%	IP		DC	COST	%
£1,410,476.29	44.3%	16	1676	43	£1,778.55	0.1%	£0.00	0.0%	0	0	0	£0.00	0.0%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,410,476.29	45.6%	16	1676	43	£807.95	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£8,457,615.15	32.7%	1252	1531	8433	£3,430.47	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£702,214.26	39.3%	124	433	621	£2,706.03	0.2%	£0.00	0.0%	0	0	0	£0.00	0.0%
£992,353.00	38.6%	62	672	252	£4,153.63	0.2%	£0.00	0.0%	0	0	0	£0.00	0.0%
£254,187.48	37.9%	3	215	7	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£738,165.52	38.8%	59	457	245	£1,656.30	0.1%	£0.00	0.0%	0	0	0	£0.00	0.0%
£829,070.15	6.8%	20	552	16	£3,272.19	0.0%	£6,195,993.33	50.8%	223830	0	32017	£4,284,027.55	35.1%
£192,284.49	24.3%	16	256	0	£0.00	0.0%	£24,245.38	3.1%	0	0	11589	£367,865.59	46.6%
£245,036.56	36.1%	2	106	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£391,749.10	3.7%	2	190	16	£3,272.19	0.0%	£6,171,747.95	57.5%	223830	0	20428	£3,916,161.96	36.5%
£10,101.61	40.4%	0	3	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£2,751,124.51	34.4%	87	3078	445	£444.37	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£67,418.27	1.3%	2	90	3	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£303,827.91	25.1%	25	96	462	£40.40	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£8,118,868.67	28.7%	268	6604	361	£3,579.25	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£2,066,895.45	23.0%	89	2321	144	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£2,009,145.26	41.1%	21	1148	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£4,042,827.96	28.1%	158	3135	217	£2,141.06	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£9,722,979.54	46.4%	168	9764	499	£1,535.10	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£438,325.28	40.9%	30	15	712	£2,130.67	0.2%	£0.00	0.0%	0	0	0	£0.00	0.0%
£14,899,153.56	51.1%	1792	7287	10579	£2,383.45	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,976,333.71	35.8%	103	1189	1062	£323.18	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£8,602,474.50	44.8%	2086	1785	1929	£9,152.83	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£8,098,150.47	50.6%	123	3659	94	£16,309.29	0.1%	£0.00	0.0%	0	0	0	£0.00	0.0%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£8,098,150.47	67.7%	123	3659	94	£6,907.96	0.1%	£0.00	0.0%	0	0	0	£0.00	0.0%
£5,530,218.87	37.6%	1142	2635	3773	£7,688.11	0.1%	£0.00	0.0%	0	0	0	£0.00	0.0%
£4,276,920.54	42.4%	1067	1933	2611	£3,433.78	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£12,970.49	4.2%	6	6	5	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£28,361.66	8.4%	1	26	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,211,966.18	30.6%	68	670	1157	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£12,308,738.50	64.0%	186	11791	2110	£3,756.96	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£104,205.34	24.5%	0	144	0	£2,911.49	0.7%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,840,361.67	31.8%	184	1398	84	£282.78	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,627,567.09	31.0%	376	244	2202	£242.38	0.0%	£104,007.31	2.0%	24641	0	0	£22,865.09	0.4%
£491.54	1.6%	0	0	1	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,164.13	100.0%	0	1	2	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£1,625,911.42	31.1%	376	243	2199	£242.38	0.0%	£104,007.31	2.0%	24641	0	0	£22,865.09	0.4%
£24,382.26	77.6%	1	11	0	£0.00	0.0%	£0.00	0.0%	0	0	0	£0.00	0.0%
£921,348.57	45.8%	20	599	39	£9,699.55	0.5%	£0.00	0.0%	0	0	0	£0.00	0.0%
£89,737,309.18	873.5%	8067	55256	33719	£75,820.69	2.0%	£6,300,000.64	52.8%	248471	0	32017	£4,306,892.64	35.6%

APPENDIX I. The programme budget

COMMISSIONING CONSORTIUM					COMMISSIONING CONSORTIUM													
PRIMARY CARE TRUST PROVIDER					OTHER TRUSTS		IND. SECTOR		VOL. & MISC.		PRESCRIBING		PMS/GMS		BALANCE APPORTIONED		Total Cost (relating to the 23 Programme Budget	%
COST	%	ACTIVITIES			COST	%	COST	%	COST	%	COST	%	COST	%	COST	%		
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£3,183,675.96	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£91,811.81	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£3,090,549.99	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£25,832,222.60	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£1,788,101.67	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£2,574,047.00	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£671,033.32	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£1,900,441.44	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£12,198,880.22	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£789,959.23	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£679,367.13	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£10,729,537.70	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£24,975.14	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£7,999,337.52	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£5,078,005.75	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£1,208,727.13	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£28,239,865.18	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£8,982,991.16	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£4,890,174.59	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£14,364,030.32	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£20,960,162.38	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£1,072,146.53	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£29,135,193.51	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£5,522,670.26	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£19,213,894.93	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£16,008,718.97	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£4,028,759.82	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£11,969,872.46	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£14,706,967.95	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£10,092,974.58	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£312,524.27	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£337,879.14	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£3,958,061.69	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£19,218,803.89	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£425,510.94	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£5,782,992.02	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£5,256,270.45	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£31,579.47	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£1,164.13	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£5,223,393.56	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£31,428.98	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£2,012,914.15	100%
£0.00	0.0%	0	0	0	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	£0.00	0.0%	GRAND TOTAL	%

APPENDIX J. Benefit criteria weighting questionnaire

Weighting the Relative Importance of Different Criteria for Assessing Priorities for NHS service developments

Introduction

[The Commissioning Consortium] have agreed to develop their commissioning arrangements as a logical transformation for delivering the NHS Plan and the SHA strategic direction in the era of financial flows, choice and foundation status.

A new commissioning approach is based on an integrated and unified commissioning process supported by a dedicated commissioning infrastructure under the title Commissioning Consortium which will start to operate in full from 1st October 2004. The consortium will cover the services provided by:

- Nowhere NHS Trust
- Nowhere NHS Trust 2
- Nowhere Mental Health NHS Trust
- Nowhere Ambulance Services
- Nowhere NHS Trust 3

The Commissioning Consortium function includes:

- Analysis of need, outcomes and priorities based on local LDPs and collective consideration
- Development of service specification encompassing for example external guidelines, access criteria, treatment protocols, standards, NICE appraisals/guidance
- Development of a commissioning approach focussed on integrated care pathways in response to the SHAs vision for services in the future
- Development of binding contracts including risk sharing arrangements
- Performance management of those contracts
- Service review

In order to fulfil its function, the Commissioning Consortium is developing a priority setting framework. The first step in developing this framework involves agreeing a set of criteria by which different options for service investment, re-design, and reduction can be assessed.

Proposed criteria

In drawing up a draft set of criteria, the following sources were used as a starting point:

- Criteria developed by other health authorities and agencies in the UK and abroad
- Criteria developed by local government agencies in the UK

- Local criteria used in the recent past by [the Consortia PCTs]

Perhaps not surprisingly, given the common aims shared by most public sector agencies, four key types of commonly used criteria emerged:

1. **Policy & strategy criteria**
2. **Feasibility & practicality criteria**
3. **Quality of life & length of life criteria**
4. **Quality of service criteria**

A total of 18 separate sub-criteria were identified within these four main headings.

APPENDIX J. Benefit criteria weighting questionnaire

Using the criteria to assess different options for service investment, re-design and reduction

When deciding on the priorities for commissioning, the consortium will need to consider four broad kinds of options for change in existing services:

1. **Commissioning more of a service which will require investment**
2. **Commissioning a new service which will require investment**
3. **Re-designing a service (or services) which may require investment or may release resources**
4. **Commissioning less of a service which will release resources**

In order to prioritise any of these different kinds of options for change in services, whilst remaining in financial balance, commissioners will need to ask two questions of each option:

1. **What is the marginal cost requirement (or cost saving) from the option for change?**
2. **What is the marginal benefit gained (or lost) from the option for change?**

Weighting the relative importance of different criteria for assessing priorities

In order to assess the marginal benefits gained (or lost) from different proposed service options for change, the consortium is seeking the judgements of various stakeholder groups on the relative importance of the four main criteria headings and the 18 sub-criteria.

In the pages which follow, you are asked to 'spend' points to indicate what you consider to be the relative importance of these different criteria in deciding how to invest NHS resources.

APPENDIX J. Benefit criteria weighting questionnaire

1. Weighting the relative importance of *four main* criteria for assessing priorities for NHS service developments

Please 'spend' 100 points to indicate the relative importance you attach to the following **four main criteria** for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"If I were to invest more resources in developing NHS services, how important are each of these four criteria in helping me decide where to invest?"***

Spend more points on criteria you consider to be more important. You can spend all 100 points on one area if you wish. You ***cannot*** spend more than 100 points in total:

Spend 100 points

1. **Policy & Strategy**
   Does the service development help to meet National or local policy objectives/targets? Does it have local support from politicians and the public?

2. **Feasibility & Practicality**
   Is the service development affordable, and easy to implement. Does it offer reasonable risk?

3. **Quality & Length of Life**
   Does the service development improve life expectancy, physical, mental or social well-being, or life circumstances?

4. **Quality of Service**
   Does the service development improve equity of access, waiting time, physical or human resources, or sustainability of the service?

Total must add up to 100

APPENDIX J. Benefit criteria weighting questionnaire

2. Weighting the relative importance of sub-criteria of Policy & Strategy

Please 'spend' 6 points to indicate the relative importance you attach to the following **three sub-criteria** of policy and strategy for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"How important are each of these sub-criteria in relation to the overall criterion of Policy & Strategy?"***

Spend more points on sub-criteria you consider to be more important. You can spend all 6 points on one area if you wish. You ***cannot*** spend more than 6 points in total:

Spend 6 points

1. **Meeting local policy objectives and/or targets**
   Existing LDP Commitments; Key targets or balanced scorecard targets (PCT and Acute, Mental Health Trusts); SHA vision and strategy e.g. integration of primary and secondary care

2. **Meeting national policy objectives**
   NHS Plan; National Standards; Public Health White Paper; Patient choice

3. **Support from local politicians and the local community**
   Compatible with strategic partners' policies; has support of local MPs, has support of the public and local community groups

Total must add up to 6

APPENDIX J. Benefit criteria weighting questionnaire

3. Weighting the relative importance of sub-criteria of Feasibility & Practicality

Please 'spend' 8 points to indicate the relative importance you attach to the following **four sub-criteria** of feasibility & practicality for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"How important are each of these sub-criteria in relation to the overall criterion of feasibility & practicality?"***

Spend more points on sub-criteria you consider to be more important. You can spend all 8 points on one area if you wish. You ***cannot*** spend more than 8 points in total:

Spend 8 points

1. **Overall affordability**
   The overall cost is not prohibitive

2. **Ease of implementation**
   Will get clinician (primary and secondary), provider 'buy-in'

3. **Implementation within required timescale**

4. **Risk of being implemented to plan**
   Reasonable risk of option being implemented to plan and delivering anticipated benefits

Total must add up to 8

APPENDIX J. Benefit criteria weighting questionnaire

4. Weighting the relative importance of sub-criteria of Quality & Length of Life

Please 'spend' 10 points to indicate the relative importance you attach to the following **five sub-criteria** of Quality & Length of Life for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"How important are each of these sub-criteria in relation to the overall criterion of Quality & Length of Life?"***

Spend more points on sub-criteria you consider to be more important. You can spend all 10 points on one area if you wish. You ***cannot*** spend more than 10 points in total:

Spend 10 points

1. **Life expectancy**

2. **Physical well-being**

3. **Mental well-being**

4. **Social well-being**

5. **Life circumstances**

Total must add up to 10

APPENDIX J. Benefit criteria weighting questionnaire

5. Weighting the relative importance of sub-criteria of Quality of Service

Please 'spend' 12 points to indicate the relative importance you attach to the following **six sub-criteria** of Quality of Service for assessing priorities for NHS service developments. When spending the points please ask yourself the question: ***"How important are each of these sub-criteria in relation to the overall criterion of Quality of Service?"***

Spend more points on sub-criteria you consider to be more important. You can spend all 12 points on one area if you wish. You ***cannot*** spend more than 12 points in total:

Spend 12 points

1. **Accessibility & Waiting Time**
   Ability for an individual to obtain needed healthcare within an acceptable timeframe; considerations include availability, cost of service, location, hours of operation, transportation, etc.

2. **Equity & Health Inequalities**
   Accessibility to socially excluded, ethnic or other minority groups, meeting inequality targets

3. **Human Resources**
   e.g. capacity, skill mix, training

4. **Physical Resources**
   Quality of buildings, furnishings, equipment, food

5. **Patient/Carer Satisfaction**
   Adequate information, appropriate patient-focus, patient involvement

6. **Sustainability of the Service**
   Likelihood of long term survival of the service

Total must add up to 12

APPENDIX K. Standard business case template

Title:

Service Area:

Is this an investment option, a resource releasing option, or resource neutral?

Investment ☐ *Resource neutral* ☐ *Resource releasing* ☐

Responsible Commissioner:

1. **Introduction and strategic context of proposal:**

2. **Proposed changes to service(s):**

3. Expected benefits gained or lost:

Main Benefit Heading	Criterion	Assessing the benefits gained/lost from Investing/releasing resources in the proposed option
		Please circle a number from -4 to +4 to indicate the likely impact of the proposed option when assessed against each sub-criterion (i.e. ***+/-4 = very large positive/negative impact; +/-3 = large positive/negative impact; +/-2 = small positive/negative impact; +/-1 = minimal positive/negative impact; 0 = no impact;? = don't know; N/A = not applicable****)* **Negative Impact | Positive Impact |**
1. Policy & Strategy	• **Impact on meeting national policy objectives** +4 = e.g. will bring local NHS significantly closer to meeting major policy objectives -4 = e.g. will take us significantly further away from major policy objectives	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached? Y / N**
	• **Impact on meeting local policy objectives and/or targets** +4 = e.g. will bring local NHS significantly closer to meeting local key targets -4 = e.g. will take us significantly away from local key targets	**- 4 -3 -2 -1 0 +1 +2 [+3] +4 ? N/A** **Is supporting evidence attached? Y / N**
	• **Impact on opinion (support or opposition) of local politicians and/or local community** +4 = e.g. option has very strong support from local community groups and MPs -4 = e.g. option is very strongly opposed by local community groups and MPs	**- 4 -3 -2 -1 0 +1 +2 [+3] +4 ? N/A** **Is supporting evidence attached? Y / N**
2. Feasibility / Practicality	• **Impact on overall budget** +4 = e.g. will release very significant resources in relation to overall expenditure -4 = e.g. will require very significant investment in relation to overall expenditure	**- 4 -3 -2 -1 [0] +1 +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**

	• **Impact on implementation** +4 = e.g. will get very significant provider 'buy-in', with good chance of being delivered on time and on budget -4 = e.g. will get very significant provider 'resistance', with high risk of being delivered over budget and behind schedule	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached? Y / N** **Original plan available – driven by provider services**

Main Benefit Heading	**Criterion**	**Assessing the benefits gained/lost from Investing/releasing resources in the proposed option**
		Please circle a number from -4 to +4 to indicate the likely impact of the proposed option when assessed against each sub-criterion (i.e. ***+/-4 = very large positive/negative impact; +/-3 = large positive/negative impact; +/-2 = small positive/negative impact; +/-1 = minimal positive/negative impact; 0 = no impact; ? = don't know; N/A = not applicable****)* **Negative Impact | Positive Impact |**
3. Quality/Length of Life *Please think about the impact on:* *1) the average individual patient/client/carers* ***AND*** *2) the total number of patients/clients/carers*	• **Impact on life expectancy** +4 = e.g. very large number of added years to life for a large number of people; or small number of added years to life for a very large number of people -4 = e.g. very large reduction in years of life gained for a large number of people; or small reduction in years of life gained for a very large number of people	**- 4 -3 -2 -1 [0] +1 +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**
	• **Impact on physical well-being** +4 = e.g. very large improvement in physical function for a large number of people; or a small improvement in physical function for a very large number of people -4 = e.g. very large loss of physical function in a large number of people; or small loss of physical function in a very large number of people	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached? Y / N** **Supported by Royal National Institute for the Deaf**
	• **Impact on mental well-being** +4 = e.g. very large improvement in mental health for a large number of people; or a small improvement in mental health for a very large number of people -4 = e.g. very large loss of mental health in a large number of people; or small loss of mental health in a very large number of people	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached? Y / N**

	• **Impact on social well-being** +4 = e.g. very large improvement in social function for a large number of people; or a small improvement in social function for a very large number of people -4 = e.g. very large loss of social function for a large number of people; or small loss of social function for a very large number of people	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached? Y / N** **Pilots indicate that 67% of hearing aid users will benefit from this investment – approx 20,000 patients within consortium**

Main Heading	**Criterion**	**Assessing the benefits gained/lost from Investing/releasing resources in the proposed option**
		Please circle a number from -4 to +4 to indicate the likely impact of the proposed option when assessed against each sub-criterion (i.e. ***+/-4 = very large positive/negative impact; +/-3 = large positive/negative impact; +/-2 = small positive/negative impact; +/-1 = minimal positive/negative impact; 0 = no impact; ? = don't know; N/A = not applicable****)* **Negative Impact | Positive Impact |**
3. Quality of life cont...	• **Impact on life circumstances** +4 = e.g. very large improvement in employment or welfare benefit entitlements for a large number of people; or a small improvement in employment/benefits for a very large number of people -4 = e.g. very large loss of employment/benefit in a large number of people; or small loss of employment/benefits in a very large number of people	**- 4 -3 -2 -1 0 [+1] +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**
4. Quality of service	• **Impact on accessibility and waiting time** +4 = e.g. very large reduction in waiting time for a treatment; or very large increase in local access to a service -4 = e.g. very large increase in waiting time for a treatment or very large reduction in local accessibility of a service	**- 4 -3 [-2] -1 0 +1 +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N** **Potential risk identified in original paper of an increase in waiting times**

	• **Impact on equity & health inequalities** +4 = e.g. very large increase in accessibility of treatment to significant socially excluded or ethnic minority groups; or significant reduction in mortality gap between deprived and affluent groups -4 = e.g. very large reduction in accessibility of treatment to significant socially excluded or ethnic minority groups; or significant increase in mortality gap between deprived and affluent groups	**- 4 -3 -2 -1 [0] +1 +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**
	• **Impact on human resources** +4 = e.g. very large increase in staff capacity; or very significant improvement in skill mix; or very large improvement in level of training -4 = e.g. very large reduction in staff capacity; or very significant deterioration in skill mix; or very large deterioration in level of training	**- 4 -3 -2 -1 0 [+1] +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**

Main Heading	Criterion	Assessing the benefits gained/lost from Investing/releasing resources in the proposed option
4. Quality of services cont...	• **Impact on physical resources** +4 = e.g. very large increase in size or quality of building; or very significant improvement in number or quality of equipment; or appropriate reduction in size of building -4 = e.g. very large inappropriate increase in size of building; or very significant reduction in quality of building or equipment; or very large inappropriate increase in size of building	**- 4 -3 -2 -1 [0] +1 +2 +3 +4 ? N/A** **Is supporting evidence attached? Y / N**
	• **Impact on patient/client satisfaction** +4 = e.g. very large improvement in level of patient/client satisfaction with services -4 = e.g. very large reduction in level of patient/client satisfaction with services	**- 4 -3 -2 -1 0 +1 [+2] +3 +4 ? N/A** **Is supporting evidence attached?** Y / N
	• Impact on sustainability of the service +4 = e.g. very significant increase in long term viability of the service -4 = e.g. very significant reduction in long term viability of the service	**- 4 -3 -2 -1 [0] +1 +2 +3 +4 ? N/A** **Is supporting evidence attached?** Y / N

APPENDIX K. Standard business case template

4. Expected costs incurred/saved in 2005 – 06

Capital

Revenue

- Staff
- Non-staff

Net surplus/
Net cost

5. Expected costs incurred/saved in 2006 - 07

Capital

Revenue
- Staff
- Non-staff

Net Surplus/
Net cost

6. Additional Comments

Number of beneficiaries